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ABSTRACT

This exploratory study of adolescents in three secondary schools focuses on an investigation of perceptions, attitudes, and motives toward school and toward learning decision-making styles and communication patterns. The schools deliberately represent different socio-economic backgrounds. A random sample of approximately 60 11th graders was selected from each school. Instruments included an interview schedule, a thematic apperception test depicting school scenes, an opinion survey, a questionnaire, a Q-sort and a decision-making interview schedule. Results indicated that the major differences in attitudes, perceptions, motives and decision-making styles were almost exclusively due to school differences, and not to sex. Urban school pupils viewed learning as passive obedience to teacher directives. Suburban pupils exhibited both the strongest hostility toward learning the strongest extrinsic motivation for studying, a trend most prevalent among the boys. In decision-making the suburban pupils tended to rely on directions from others but to a lesser extent than in the urban school. In the small private school, the pupils manifested intrinsic interest in learning, substantial self-direction decisions and a strong sense of personal independence. (Author)

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Report Number 6

STUDIES OF ADOLESCENTS IN THE SECONDARY SCHOOL

Norman A. Sprinthall and
Ralph L. Mosher

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Harvard University
Cambridge, Massachusetts

1969

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Chapter I

INTRODUCTION

It is, of course, difficult some three years after a study has begun to accurately portray the rationale, or the series of reasons and motives out of which the study developed. At the most obvious level a study of adolescents and their motives and attitudes toward learning and toward school derived from a generic (i.e., professional and intellectual) interest in this area by the co-investigators. Our research lenses were ground in part by our training in counseling psychology. Almost predictably, our initial research focus was on the secondary school student as a learner and as an adolescent, on his perceptions of the school and on his decision-making in personal, vocational and educational areas. Initially, our interest was in psychological variables - "motivation," attitudes toward learning and school; our protagonist was the individual student.

Prior research was also contributory. We had examined, in previous psychological studies, groups of teachers and counselors in an effort to develop more systematic and comprehensive information concerning questions of professional effectiveness in those roles. A next and crucial logical step was to shift the research focus to the third population in any school, the pupils.

There were additional reasons for the investigation. It appeared rather obvious to us that most guidance practice in schools, as opposed to what might be called guidance theory, was focused on the bits and pieces of school routines - brief and infrequent contact with students, college advising, schedule changes for students, etc., all activities that are, in fact, ancillary administrative services. We doubt that typical guidance practice is substantially or significantly involved with the student's personal, vocational or educational decisions.

Nor does guidance know much of how adolescent students think about issues of personal, educational or vocational choice. Information as to how students make such private decisions appeared to the investigators to be valuable developmental data per se and critical also to the assumption by guidance of a significant facilitating function in regard to decision-making. Further, the spate of ad hoc "treatments" presently being developed in guidance (such as group counseling, career similation "games," teaching decision-making, behavioral modification guidance) suggested to us the prior importance of a comprehensive description and understanding of the adolescent's view of the school, his attitude toward learning and the process of his decision-making as essential to specification of proposals to modify attitudes, motives, or behaviors of pupils through one of these currently popular guidance modes. We hoped on the other hand that a broad study of pupils carried out in their "natural" setting, the schools, would have implications for developing more effective definitions and practices for guidance. In fact as the study proceeded we were thankful that we had set a broad scope at the outset since the results suggested that pupils in each of the three schools included in the study were exhibiting a broad set of attitudes toward school and learning - motives that called into question the entire rationale for schooling rather than just one institutional aspect such as guidance services. In fact, if there was one message that came through to us from pupils, it was just that - the need to examine the school's effect in terms of its climate for learning - the unarticulated but de facto student attitudes and values with regard to the school and their reasons for being there. In other words, we found that the basic attitudinal dimensions were so similar within each school and so dissimilar across the schools that these general questions of the intellectual and motivational effect or climate of the institution became uppermost in our minds as we continued to examine the data. The voices from the back of the classroom raised profound questions about the gap between the rhetoric and the reality of effect in the school.

Put simply, then, as educators and psychologists we wanted to develop a comprehensive and current picture of adolescents in schools and of certain of their attitudes and motives. We assumed that school effects pupils in certain crucial ways (it teaches content and skills; it engenders attitudes toward school, learning and self, it creates a miniature society for students). Adults in the school (i.e., teachers and counselors) presumably are in particularly strategic positions to influence pupils. How does that influence appear if we look not at the teachers and counselors, but at the pupils? If beauty indeed is in the eye of the beholder, then the potency of the school (to borrow E. J. Shoben's phrase) should appear somewhere within the pupils. College board scores, the proportion of students going on to college, academic achievement are much too limited criteria of the school's potency or effect. In fact, this is a very significant position for study. The school is perhaps the single institution in our society through which almost all people pass. The passage itself may be significant or insignificant in academic terms. We doubt that the impact of the school's purposes, personnel and program on the personalities of the students can be insignificant. Indeed, as we studied individual pupils intensively, we began to see and understand the pervasive effect of this institutional impact on personality (and vice versa), to see in the actual psychological and social curriculum of the school an index of its effect which we feel is of first order importance.

Of course, basic to the whole research procedure is the question of assessing attitudes or similar dimensions denoted by constructs such as motives, values, reasons for school. In short, why study attitudes? Our position on this question is clear. We view behavior as significantly a function of these personality constructs usually denoted as attitudes or personal dispositions. Attitudes appear to us as a crucial influence on how and why we may behave the way we do. In the case of school pupils we felt it particularly important to examine such dimensions because only in that way could we get under the "surface" - the immediate observables of schooling - teacher pupil ratio, books in the library, the school budget, the curriculum in the abstract, academic achievement data, etc. We were concerned not with such variables, but with the less obvious but equally important correlates of school and formal instruction. How students themselves, subjectively perceive, feel about, and think about school, learning, the peer group, etc. - these dimensions we saw as crucial influences on the pupils' actual response to school. Also we thought it important to probe for their motives and their reasons for particular responses. We naturally thought that (for example) it would be a significant difference if one pupil was studying and learning in order to please his parents, another to get "ahead," and still another because he enjoyed working through the subject matter of a course. If education has a legitimacy, it would seem to us that we have to be concerned with more than just the outcome (i.e., formal learning) or the behavior, e.g., in this case - studying. In brief, we think that what a student learns and what he feels about what he learns both matter - and define the school's effect.

In addition to the importance we attach to attitudes and personal dispositions in general, we suggest that such variables may have even greater relevance during the stages of adolescence. As the secondary school pupil by definition is in a transitional stage between childhood and adulthood, his views of himself and the attitudes and perceptions of the world around him are inevitably in the process of formulation or indeed reformulation. Although it would be an unnecessary digression to provide all the theoretical and research evidence to attest to this point, it is certainly an uncontestable position that adolescence as a transitional and marginal psychological stage of development increases the importance of such personal and subjective dimensions of attitudes as major sources of influence upon behavior. This is not to say, however, that all theories of adolescence necessarily agree in their conceptions of adolescence, the dynamics of development, or the major causes for adolescent behavior. In fact, as we shall point out shortly that the amount of significant disagreement at the theoretical level concerning the nature of adolescence as a psychological stage caused us to avoid a strict hypothesis testing model for the research. For a series of different reasons, however, practically all major theoretical positions about adolescence do indicate that personal dispositions are of special significance during that stage, whether it is called attitude reformulation, value chrystalization, identity development, self-concept formation, interest specification or whatever. Piaget has indicated quite clearly that the major transformation that takes place during adolescence - (the ability to perceive abstractions, to conceive of unexperienced possibilities) marks a great step forward in freeing a person from concrete thought. Adolescents themselves put it more simply - "It's when you start to think about things you never thought about before." This change in cognitive capacity lends new significance to the subjective and the personal agenda.

Psychological theory, then, is in general agreement concerning the significance during adolescence of personal disposition and attitudes. (The exception, of course, is with behavioral psychologists who still refuse to attach any significance to anything they can't see or count except their own thinking process.) This did not mean that we were able to use a single theory. In fact it seems that the nature of adolescence at a stage of development has become an increasingly controversial area for theoretical formulations. Psychoanalytic theory has proposed a framework which defines the stage as a recapitulation of psychosexual development in the first five years of life, a recapitulation of the struggle to master the drives of sex and aggression - which connotes the stage as one of "strum und drang." The adolescent is conceptualized as caught in the webb of a deep intra-psychic struggle governed by unconscious but incestuous desires. At the same time anthropologists have been quick to point out that adolescence rather than a psychological given is, in fact, a cultural artifact. Since various societies seem to manifest different "kinds" of adolescents, the theoretical explanation, the anthropologists would agree, was to be formed through a functional analysis of the culture. In American society, for example, adolescence has a different definition for whites than for blacks, for the child of poverty than for the child of affluence.

Somewhere between these two extreme positions other positions have emerged as explanations for the phenomenon.

A socio/psychological position emerged which defined adolescence as a special stage not primarily a recapitulation nor as just culturally defined. The growing psychological absence of parents, especially fathers, in the lives of adolescents, has created according to this view a vacuum into which the peer group has now moved. These changes, both psychological and sociological have created a new domain for adolescence as psychologically separate from either childhood or adulthood and yet uniform at least across classes within a culture. Thus, in this view, adolescence is a special and distinct stage that is at the same time a unitary phenomenon across social and economic classes. Adolescence then emerges as a sub-culture of its own and therefore has its own code of conduct, dress, language, sources of influence, etc.

Finally we would be remiss if we did not mention one further development in theorizing about adolescence. Most recently a philosophical/psychological framework has been suggested. In this view adolescence is seen largely in existential and somewhat cosmic terms - the search for identity, authenticity as a person ... the battle against personal dis-integration and alienation ... the groping for deep and significant interpersonal relationships with non-plastic "real" people. Adolescence, in this frame, is the time for confrontation with the ultimate question of existence and personal meaning.

Rather than select one theory as most plausible, or to attempt a synthesis of generic relevancy from a series of such diverse positions as a guide to our research, we chose a different course. It seemed to us in viewing the diverse theory current with regard to adolescence that we were witnessing another round in the great game of personality theory. That field has long been the arena for separation, orthodoxies, diverse schools and indeed scholasticism. Instead of binding ourselves to one position with regard to either personality theory in general or adolescent theory in specific, we decided that our efforts would be focused as much as possible on a multiple assessment of and descriptive approach to pupils in secondary schools. To be sure concepts, questions and results from theory and research inevitably intruded. One could not simply pretend or forget completely Coleman's findings concerning a monstrous and monolithic adolescent sub-culture devoted to athletics, good looks and fast cars, for example. However, we deliberately attempted to keep our own focus broad. It became almost a by-word with the research group to note the many facets of adolescence as a stage. Someone could always be counted on to ask - "Will the real adolescent stand up" - Will it be Huckleberry Finn, Holden Caulfield (or more currently, Benjamin Braddock), or Duke in The Cool World? Is adolescence a golden age, a happy moritorium - or conspiracy of silence in which each is tortured by private self doubt?"

The heuristic approach toward research is, of course, always a risky one because it can prevent any sort of closure. Even more difficult, as we found out during the initial planning stages of the research, was the tendency to go over and over the same ground in our discussions to carefully avoid theoretical biases. Inevitably we came to make certain compromises in our choice of aspects of study and in the selection of instruments. However, our guiding principle was always to prevent so far as possible our own views of adolescents from determining critical research decisions. The design, of course, will be described in the next chapter. However, two important considerations should be mentioned here concerning the selection of the schools and the sample within each school.

We had decided at the outset that we ought to do the study in the school building rather than have research subjects come to the University. We wanted to appear in the eyes of students as interested "visitors" to their school - interested to learn as much as we could about how they "saw" school. Along that same line we decided that we should use procedures such as interviews, questionnaires, etc., for multiple assessments with each pupil. Thus rather than a single questionnaire administered to entire populations of many schools, we chose a more intensive investigation with a smaller number of subjects. We estimated some seven or eight hours of assessment procedures for each pupil - a combined total composed of individual interviewing and small group administration of some of the instruments. This meant that we could make the assessment procedures somewhat redundant yet not so overlapped that the pupils would refuse to cooperate. For example, in developing information concerning attitudes toward school and learning, we asked some questions in an individual interview (i.e., "what do you see as the main point of being in school?"), a survey was developed containing statements about school, a series of TAT - like school scenes was presented, and a multiple choice questionnaire was used containing statements about educational values. In this way we could look across our instruments for consistencies in response rather than being forced to rely on a single instrument for "valid" answers. Also because of the amount of individual and small group contact we had with the pupils in the schools under study, it seemed that in most cases a good rapport was established. This, of course, is a rather subjective position to note, but since all the members of the research team had extensive prior experience as counselors and/or teachers with secondary pupils, we did have a reasonable sense that the pupils were not putting us on! There was some hi-jinx as might be expected, and some expressive comments on the margins of some of the instruments but practically all of this contained a tone of good-natured kidding (some of the comments are noted in later chapters of this report). Of course this raises what to any researcher is a deeply fundamental question - are the responses meaningful? As we noted above at intuitive level based upon experience in working with pupils this age, we did feel that we could "believe" their responses. Also as we examined the data itself, the consistencies that emerged across the instruments lend further support to this position. Finally, at one school we actually returned the year following the data collection, outlined some of the findings and then raised some of these questions of veracity with them. The pupils indicated a kind of suspicion at the outset but after two or three contacts most of them noted a willingness to tell us what they thought, not what they thought we wanted to hear. Less direct reports from the other schools tended to confirm the same position. Although there is really no ultimate measure of validity, we tend to take a position similar to that of the late Gordon Allport. If you want to find out how people think and feel about certain issues - ask them! In essence, the research really boils down to a series of methods of simply accomplishing that - asking pupils how they "see" school.

Quite naturally then our deepest gratitude is for those pupils who participated in the project and so willingly worked with us during the winter of our data collection.

The report is organized essentially by each data collection method designed to tap one specific aspect of the overall study. The research team member most responsible for each particular segment is listed as author for that chapter. However, we should note that all the members did contribute to the development of ideas, the creation of specific instruments and in the analysis of results in the overall project. This was not simply a series of one-man projects that were put together only at the end.

Certainly the co-investigators want to emphasize their own appreciation to all the research assistants and associates who themselves worked so willingly on the development, implementation and completion of the project.

Chapter II

RESEARCH DESIGN

As we indicated in the introduction, the design for the study was developed to focus on student perceptions of school, their attitudes toward learning, their styles in making decisions. In addition, one further area of investigation was developed to focus on communication patterns between adolescents and their parents. However, this latter aspect was limited to one sub-sample rather than an investigation of communication patterns in all of the schools under study.

Because of the limits of time and staff resources we decided to restrict the investigation to a cross-sectional rather than longitudinal design. At the outset we saw the necessity for an intensive investigation through multiple assessment procedures if we were to have confidence in our findings concerning adolescents in secondary schools. Ideally, of course, it would be preferable to conduct both an intensive study and build in an overlapping design. In those circumstances we could not only present an accurate picture of secondary school pupils, but also chart the stages of development, and denote the changes over time that occur. In fact, we discussed at some length following a research sample from the 9th to 12th grade or including pupils from the 9th grade and another group from the 11th grade.

There was one major obstacle to such a longitudinal design, however. It became obvious to us during the planning year of the study (the first year of the three-year study was focused on the development of assessment methodology) that it was simply impossible to simultaneously develop instruments and create a longitudinal design. During that year we concluded that we could not use standard instruments to any significant degree as a means to assess the variables we considered significant, namely the pupils' perceptions and attitudes. We did examine some of the more usual standardized procedures such as the Guilford-Zimmerman, the Allport Vernon Lindzey and some of the newer instruments such as the Stern School Characteristics Inventory and others as well as less direct measures such as the standard TAT series. However, in every case such instruments seemed somewhat tangential as assessment procedures for our purposes. As a result, we dropped consideration of a longitudinal study to concentrate on pupils in a single grade but from different schools. In this way we could focus on the all important questions of assessment procedures.

In deciding to limit the study to a single grade, we selected the eleventh grade as the target population. The choice of high school juniors was based on a series of reasons. We did not want to deliberately exclude from the research population pupils who may have dropped out at the end of their junior year. (In retrospect we found that over one quarter of the research population in one of our schools had indeed dropped out at the end of their junior year). Also the junior year is almost exactly the midpoint of the adolescent age range. More importantly, however, the junior year focus allowed us to avoid a major preoccupation with the immediate problems that confront high school seniors, e.g., job selection, college choice, military service. Similarly, we wanted to avoid possible bias in perceptions of school caused by the halo effect of the senior year or the anticipation of school termination.* In short, our concern was to select the grade that represented the midpoint of secondary schooling to increase the opportunity for comprehensive perceptions of that particular setting.

The second major research question we faced was in the selection of the particular schools in which to conduct the study. The limiting conditions we had imposed for an intensive study also meant that we could only conduct the research in a few schools geographically contiguous to the research center in Cambridge. At the same time we deliberately wanted to study the views and perceptions of widely different groups of adolescents. The result was a compromise: the selection of nearby schools that were markedly different in terms of the social and economic backgrounds of the pupils. However, after considerable discussion of the variable of race, we decided to select only schools with white students.**

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*In a previous study in a different context we had been struck by the tendencies of school seniors as early as the middle of that school year to speak almost as if elder statesmen when asked about school in an interview situation. Of course, we did not want a pseudo-retrospective statement.

Given these dimensions, we then visited schools and finally chose a school in a working class district, a suburban school, and a small private school. We labeled them simply as School A, School B, and School C. School A was a public school in a heavily populated urban area where approximately 20% of the students go on to four-year colleges. School B was a public school in a fashionable suburban community where approximately eighty to eighty-five percent of the student population enter college upon high school graduation. The other institution, School C, was a private college preparatory school with both boarding and day students. Practically all of those enrolled in the private school enter college. More exact information on the socio-economic backgrounds of the pupils is presented in Chapter III. That material simply confirms our own subjective assessments made during field visits that the three schools did indeed comprehend three different social and economic groups of adolescents. We then approached the administrative staff of each school, explained the nature of the investigation and requested their participation.

** A team of colleagues on another research project were investigating educational aspirations and attitudes toward self and learning on the part of negro adolescents. See Rosenthal, R. & Bruce B. Project Pathways H.G.S.E., Cambridge, Mass. We had talked with "Ghetto" adolescents in some of our preliminary school visits. As a result we concluded that the race issue was of such importance that we should not include it as only one of many issues.

In general the schools agreed to participate, but with minimal conditions. As a result we made some minor adjustments in the selection procedures to allow for local variation. We approached each school for a random sample of approximately 30 boys and 30 girls in the eleventh grade. However, we had to vary our sampling procedures and were not able to end up with precisely 60 pupils from each of the three schools.

School A, the urban school, with approximately 900 juniors enrolled, suggested that the project select 2 of their 28 homerooms for the sample, each homeroom contained ca. 30-35 pupils. Pupils were assigned to homeroom on an alphabetical basis. Thus, somewhat arbitrarily, we selected one homeroom near the top of the alphabet and one from the bottom. The school staff then requested that all the pupils in both homerooms cooperate with the research investigation team. This selection yielded 32 girls and 30 boys for our initial sample. All the students in both homerooms ostensibly agreed to participate. However, due to prolonged absence (and eventual withdrawal from school) 2 students of each sex were not in the sample. The final number of subjects from School A was 30 girls and 28 boys.

In School B, the suburban institution, students were randomly assigned to guidance counselors. Thus by selecting the entire group assigned to one counselor, we could derive a random sample of pupils for the study. Each student and his parent(s) assigned to the particular counselor were then contacted by the research staff and asked to participate in the project. From a total of 64 students approached (32 girls and 32 boys) 5 refused. Thus, the total sample in School B was composed of 30 girls and 29 boys.

The private school, School C, had a total of 81 students (38 boys and 43 girls) enrolled in the junior class. It was decided that we should approach the entire population rather than attempt to exclude a few since their exclusion might raise unintended difficulties within the sub-group of pupils. Of these students, 9 boys and 5 girls declined to participate, leaving the final sample number from School C at 29 boys and 38 girls. Unfortunately, it is not possible to estimate the influence on the research results of the refusal to participate by 14 out of 81 students in School C. It was, of course, a notably higher rate of refusal than in either of the other schools, 4 of 62 in School A and 5 of 64 in School B.

Below is a listing by School and Sex of the final numbers of subjects who participated in the research study.

TABLE 1

SAMPLE COMPOSITION BY SCHOOL AND SEX

School	Boys	Girls	Total
A (Urban)	28	30	58
B (Suburban)	29	30	59
C (Private)	29	38	67
Total	86	98	184

Data Gathering Instruments

We devoted the first year of the research project to the development of the research instruments. Each method will be described in detail in the chapters that follow. In fact, we plan to present the findings largely in accord with each assessment procedure so the general outline of each of the subsequent chapters will be generally (1) a discussion of the development of the particular assessment procedure (2) a presentation of the findings and (3) a brief discussion and summary of the results.

We did find that setting aside the first year of the project for instrument development was an important procedure in itself. In this way the staff had the opportunity to consider many aspects of assessment procedures through discussions as well as the opportunity to pre-test many of the resulting ideas. For example, we considered the problem of gaining information on the content and the strategies that pupils actually use when making decisions. We viewed possible methodological options such as an open-ended interview, focused decision cases, a tightly structured interview schedule, etc. As we discussed such issues, it became apparent that we wanted to hold to our original intent in gaining student views. The question, then, became: can adolescents respond in any elaborated way to such a "process" question as "Tell me, in your own words, how you go about making such a decision?" With this in mind, the staff visited schools not in the sample, but representing broad background differences and conducted a series of interviews with the pupils. As a result, we concluded not only that the pupils could, in fact, respond to such questions but also seemed interested in telling us about such a process. Thus we kept to an open-ended format in that aspect of the study. In a similar way, we modified specific questions in the assessment questionnaire and created the measures of opinions, a thematic apperception procedure and an interview schedule for the study of communication patterns. The specific assessment procedures we used were as follows:

Part A: Attitude Studies

(1) Background Information of the Pupils, School Activities, Motives and Attitudes: The Student Questionnaire (see Chapter III).

(2) Attitudes Toward Learning: The Student Opinion Survey (see Chapter IV). This chapter also contains information gathered through the School Q-Sort Test.

(3) Perceptions of School: The School Apperception Test (See Chapter V). As the project developed, this instrument became more and more in the preserve of one of the research assistants. We soon changed the name of the instrument to avoid the acronym SAT (already well known in secondary schools). The projective test became known as the Yanofsky Apperception Test, (YAT) as a result.

(4) Pupil Attitudes and Comments about Schooling: The School Interview Schedule (see Chapter VI).

These four assessment procedures and the resultant four chapters in this report are generally concerned with overlapping dimensions in the general area of student attitudes and perceptions. Together these form Part A of the final research report. Part B concerns decision-making and communication as a special area of investigation.

Part B: Decision-Making and Communication

(1) Student Decision-Making: Content and Strategies Employed by Pupils in Decision-Making (see Chapter VII).

(2) Communication Patterns: A Study of Communication Styles between Adolescents and Their Parents in One School (see Chapter VIII).

Chapter III

THE STUDENT QUESTIONNAIRE

Introduction

The Student Questionnaire was developed to obtain both factual and attitudinal information on the subjects. Included were questions about the occupational and educational background of the parents, attitudes toward school and toward the peer group, aspiration level, reasons for college attendance and reasons for career choice. The items were, of course, in the form of direct questions concerning these areas and many were patterned after items such as those found in the Coleman study of high school students and the Project Talent survey. The questions themselves were generally multiple choice with specific alternatives, although in a few cases the pupils were asked to write in an answer.

As a research procedure the direct questionnaire technique inherently contains certain disadvantages associated with survey research. Such questions ordinarily cannot be expected to penetrate very far below the surface, so there may be inordinate tendencies to give socially desirable or "faked" responses etc. There are at least two ways to counteract these deficiencies, either to submit the questionnaire to extensive pretesting to cross validate the items or to compare the responses to other procedures simultaneously to check for both consistency and validity. Since many of the items were similar in content to the questionnaires used in the two cited previous studies, we decided not to engage in pretesting. Also because we were using many other research instruments that were "less direct" in nature such as the Q-Sort, the apperception test pictures and the student opinion survey, we felt that this would provide opportunity to cross check the responses for consistency and validity. Thus, through the use of multiple measures on the same research subjects, we have created the opportunity for such analyses. In this way we would not be wholly dependent on any single instrument in developing our conclusions.

Plan for Presentation of Questionnaire Findings

The findings from the Questionnaire will be presented in the following groups:

(1) Descriptive background information including social and economic status of the parents, the type of school programs and attendance patterns of the pupils.

(2) Activities, interests and motives toward education and career choice of the pupils.

(3) Student attitudes toward school and peers.

The results will be presented for each school separately to provide cross school comparisons. Also, if warranted, differences between boys and girls within each school will be presented.

Part I

Descriptive Background Information

We devised a joint index as a measure of the social and economic background of the parents. This included fathers' education and occupation and the mothers' education (Student Questionnaire items #3, 7 and 8). By deriving the sum of these three components of social and economic status, we had a comprehensive index, a 15 point scale since each of the three dimensions was composed of six points. Table III-1 presents the results and indicates rather clearly that the urban school parents were almost exclusively working class or lower middle. The fathers tended to have jobs in semi-skilled or skilled trades, and just one half of them graduated from high school themselves.

TABLE III-1

Socio-Economic Background

			School	
Fathers' Education, Employment and Mothers' Education		A	B	C
3-6	Lowest SES	43	2	2
7-10	Lower Middle	15	20	3
11-14	Upper Middle	0	31	19
15-18	Highest SES	1	5	43
	Total	59	58	67
	(No data)	1	2	0

In the suburban public school, the SES of the parents clustered between lower middle and upper middle class. The spread of jobs clustered actually into three categories - about 1/3 of the fathers were skilled workers or technicians, the second 1/3 were business managers, and the last segment were professionals. Practically all the fathers graduated from high school themselves and just over half graduated from a four year college.

In the private school, the SES was almost exclusively upper middle or high. Most of the fathers were professionals and well over one half the fathers had completed college and graduate school.

It is also interesting to note the differences in the educational background of the mothers. In the urban school just over one half graduated from high school. This is the same proportion as the urban fathers. In the suburban school, almost all the mothers either graduated from high school, junior college, or technical school, but few graduated from a four year college (only 11 suburban mothers versus 29 suburban fathers). In the private school there is a marked similarity between mothers' educational background and the fathers' (45 mothers and 58 fathers have graduated from a four year college). In fact it isn't until we reach the completion of an academic doctorate or a professional degree that the private school mothers are different from the fathers in educational background. At the doctorate or professional level there were 37 fathers versus 11 mothers.

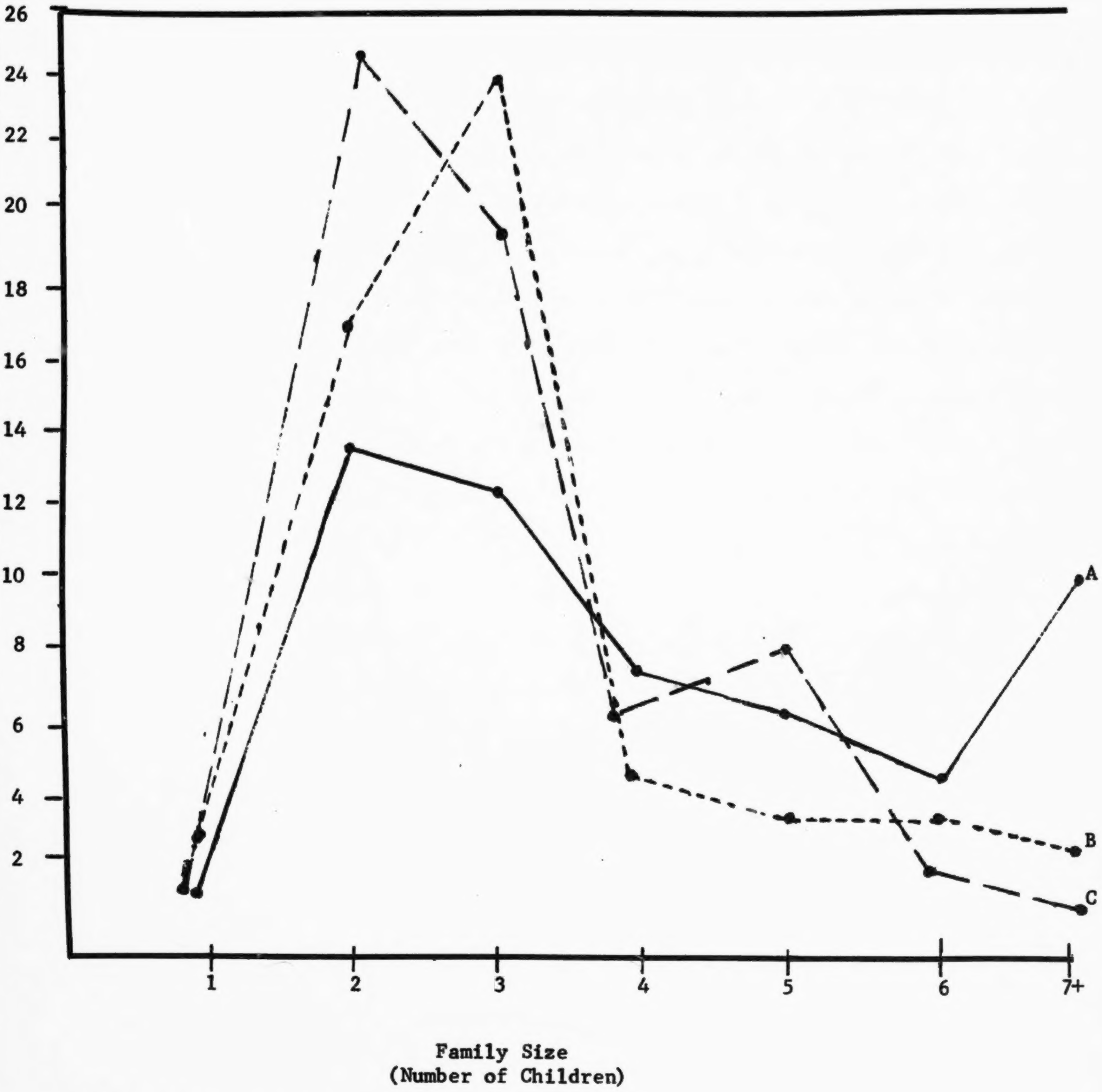
Information on family size, the main source of financial support and the extent to which mothers work is presented in Tables III-2 and III-3. Aside from the expected finding that the families from the lower socio-economic strata tend to have larger families (11 of 60 families in School A had

7 or more children), perhaps the most unusual results were those on working mothers. The majority of the private school mothers work (24% full time and 36% part time). The urban school mothers work to a lesser extent (31% full time and 17% part time). The suburban mothers work the least (10% full time and 20% half time). If we take out the number of mothers who work because they are the main source of support (e.g. circumstances force employment) the differences are more striking. Eleven city mothers, two suburban mothers and thirteen private mothers work full time. While one interpretation might be somewhat circular - private school mothers have sent their children to private school so they could work, the nature of the work these mothers do, on the other hand, may give us a better picture of possible motives. As we had noted earlier the private school mothers'educational background was sharply different from the suburban mothers. Thus it follows that the great proportion of private school mothers who worked (29 of 41) were rated in the highest career categories e.g. professional and managerial positions. The few suburban mothers who worked held jobs predominantly in secretarial or clerical areas. The city mothers tended to divide almost equally between clerical and semi-skilled to unskilled labor.

We will now turn to a description of the school programs of the pupils before summarizing the background information.

TABLE III-2

Family Size



Average Number of Children
School A=4.1; School B=3.2; School C=3.2.

TABLE III-3

Main Source of Financial Support

	School		
	A	B	C
Father	51	55	63
Mother	8	4	3
Total	59	59	66

Working Mothers

	A	B	C
Full Time	19 (31%)	6 (10%)	16(24%)
Part Time	10 (17%)	12 (20%)	24(36%)
Doesn't Work	31 (52%)	42 (70%)	27(40%)
	60 (100%)	60 (100%)	67(100%)

School Programs

The curriculum for the students in each of the three schools is presented in Table III-4.

TABLE III-4

Pupil Enrollment by Program Description

Program Description	School A B (N=29)	School A G (N=28)	School B B (N=30)	School B G (N=29)	School C B (N=29)	School C G (N= 37)
A. General	16	0	5	4	0	0
B. College Prep	9	5	24	24	29	37
C. Commercial/Bus.	3	23	0	1	0	0
D. Vocational	1	0	1	0	0	0

In school A both the boys and the girls are predominately enrolled in non-college programs. Less than one-third of the boys and less than one-fifth of the girls were enrolled in the college prep curriculum. The boys were predominately in the general course with the girls in the commercial program. It is perhaps noteworthy that the majority of boys were enrolled in the general course, a program designed to meet state requirements for a diploma, rather than a specific program for post high activity such as a college prep, vocational or business course.

In the suburban and private schools most of the pupils, both boys and girls were enrolled in a college prep program, while in the city school, of those in the college curriculum there was a difference between boys and girls. Thus at the lower socio-economic levels apparently the differential still persists in the sets of attitudes and dispositions that college is less relevant for girls than for boys.

School Attendance

For additional background information, we next asked the pupils to describe their school attendance and the amount of time spent on homework. For school attendance Table III-5 illustrates the results. Since there were no differences by sex, the totals are presented for each school.

TABLE III-5

How Many Days Were You Absent From School Last Year?

Days Absent	School A (N=59)	School B (N=55)	School C (N=62)
1-4 Days	20	18	28
5-14	29	27	26
15 or more	10 (17%)	10 (18%)	8 (13%)

The distributions appear similar with respect to school attendance. The percentage who miss school 15 or more days per year is similar (17% School A, 18% School B, 13% School C), and of course the percentages in the other two categories are similar. This would indicate that pupils attend school with the same degree of regularity regardless of school program or social/economic background.* There were no differences according to sex.

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*We did re-analyze these data by academic achievement status. Using a weighted grade average we did a median split for each school. This provided us with two groups within each school, an Above Median Grade vs a Below Median Grade. Only in the city school did the academic achievement relate to attendance. The boys in the city schools who were rated as low achievers tended to absent themselves with a significantly greater frequency than the other pupils. These were the same boys who were enrolled in the general curriculum. Perhaps these pupils are specifically underscoring the question of curriculum relevancy as well as the possible effect of low grades upon attendance. At least they apparently vote with their feet and stay away from school.

Summary

The background and descriptive information on the pupils in the study indicate that there are substantial differences across the three schools. The social and economic backgrounds of the parents show wide variation. The city school parents hold jobs in clerical, skilled and semi-skilled areas. The educational level is relatively low. The suburban school parents are largely lower middle to upper middle class in background. The private school parents are almost all upper middle to the highest SES. Particularly striking was the difference in the educational and work backgrounds of the mothers across the three schools. Quite expectedly the school programs in which the pupils in the three schools were enrolled reflected the SES background. There was no particular difference in school attendance patterns by pupils in the three schools.

Part II.

Activities, Interests, Motives Toward Education and Career

The second segment of the Questionnaire responses focused on activities, interests and motives toward school, education and career planning.

To gain an understanding of how much time the pupils directed toward study, how they viewed compulsory education and the extent to which there might be an intrinsic interest in the courses they were taking, we asked the next series of questions.

"How Much Time on the Average, Do You Spend Doing Homework Outside School"

	School A		School B		School C	
Time on Homework	B	G	B	G	B	G
"None"	1	1	2	0	1	1
½ hour/day	7	4	2	2	1	1
1 - 1½ hours	13	10	14	9	5	2
2 hours or more	8	16	12	19	22	33
	(N=29)	(31)	(30)	(30)	(29)	37

In general the trends indicate that the girls in every school study more hours outside of school than the boys, with the greatest difference in the city school and the smallest difference in the private school. Thus over half the girls in the city school indicate 2 hours or more per day as opposed to less than one-third of the boys. In the suburban school almost two-thirds of the girls are in that category as opposed to less than one-half the boys. In the private school almost 90% of the girls and over three-fourths of the boys put in two or more hours per day. Thus, thoug the trend holds in all cases it is diminished in the private school where practically everyone spends a substantial portion of their time on homework.* Also as one would expect the overall differences across the three schools are substantial. The totals combining boys and girls for each school are presented in Table III-6 .

TABLE III-6

Time on Homework	School A (N=60)	School B (N=60)	School C (N=66)
"None"	2	2	2
½ hour/day	11	4	2
1 - 1½ hours	23	23	7
2 hours or more	24	31	55

With this in mind, we then asked about intrinsic interest in learning directly.

"Of all the subjects you've studied here at school, are there any you would like to follow up in later life, just for pleasure?"

	School A	School B	School C
"Yes"	38	39	57
"No"	22	20	9

Perhaps the numbers of students who indicated that there were no subjects they would follow up in later life is surprisingly large. For example, in the city school 37% of the students indicated "No", while in the suburban school the rate was 34%. Of course the phrasing of the question was deliberate in its intrinsic connotation viz. subjects just pleasure. This may indicate, then, that a fairly significant proportion of students in Schools A and B see little intrinsic relevance or interest in material they are and have been confronted with over the course of their attendance in school. The index of rejection, for whatever reason appears substantial and cannot be attributed to a specific curriculum such as general versus college. It is true that in School A just over one half of the boys were in the general curriculum but in School B over three-fourths for both boys and girls were in the college curriculum, while the majority of girls in School A were in commercial/ business. Thus the population across the two schools represents students from general, college prep and commerical/business with the rejection rate between 34% and 37% of those pupils. Thus we may conclude that the desire not to follow up in a single subject matter area does not bear any significant relation to a specific curriculum. Rather it may indicate, based on the perceptions of the students, that any course sequence may be stultifying to intrinsic interest in ideas regardless of curriculum.

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*In checking the distribution in School C, it was apparent that the two subjects who checked "none" were pulling our leg. They said, in effect, "I am a boarding student which means there is no work outside of school - therefore the answer is none." In the section on the SOS the reader will find analogous comments from students at this school.

To provide information on the content of the course that the pupils would like to pursue "just for pleasure" we examined their write-in responses.

In the city school, eight girls listed "academic" subjects such as French (4), history (2), art (1), biology (1). Eleven girls either misunderstood the question or construed it in a narrow vocational sense, listing "subjects" like stenography (3), bookkeeping (3), typing (3), and office machines (2). It is difficult to interpret such subjects as ones that these pupils would study just for pleasure. Or it may be a prime indicator of the net result of eleven years in school and its resultant exposure to "academic" subjects. On an overall basis, eight girls noted academic subjects, eleven indicated vocational courses, and ten said "none."

For the city school boys, fourteen listed academic subjects, history (7), music (3), and one each for art, chemistry, physics and science. Fourteen listed "none."

In the suburban school nineteen girls listed academic subjects, art (6), history (3), English (3), French (3) with one each for law, language, biology and math. Four listed vocational courses "home economics" and six listed "none."

For the boys in the suburban public school there was a greater rate of rejection than for the girls. Only eight boys listed academic subjects (all different), two listed vocational courses and nineteen listed "none." This is the highest rate of rejection in any of the sub-groups.

In the private school the rates were similar for both boys and girls. Thirty-one girls listed academic subjects, four listed "none." For the boys twenty-four listed academic courses and five listed "none."*

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*Private school boys: art (3), "several" (2), English (4), drama (4), French literature (2), history (4), geometry, music, math, philosophy and physics. For the girls: art (8), English (7), biology (3), music (3), literature (2), French (2), and history, algebra, social science, linguistics, Latin and German.

Although it might be tempting to interpret this as "effect," e.g. the pupils who spend the most time on their homework have the greatest intrinsic interest, there is no evidence to support such an hypothesis.

The table on homework time indicated that there was not that much difference in terms of clock hours across the schools. It would seem more logical to question the content and/or relevance of the subject matter itself. This is hard to document but in the words of one of the students the meaning may be clarified. A student in School B noted, "You know it's really tough around here because they pile on the homework... but most of it is busy work, you know you work out one math problem and then have to do 9 more just the same way. It gets repetitious. We spend so much time studying we don't have time for learning."*

The third aspect of the Questionnaire was directed to the pupils' attitude toward compulsory education. Since there were no differences within each school by sex, the school totals are presented.

"If school were not compulsory, and it were completely up to you would you..."

	School A	School B	School C
Stay until graduation	52	54	48
Leave before graduation	3	1	4
Don't know	5	5	15

Although practically none would dropout in any of the three schools, it is perhaps unusual to note that so many in the private school (15 of 68) respond "Don't know." In the school where there is the highest stated academic interest and the greatest amount of time spent on homework, there is also the most question about compulsory attendance. Since the pupils in this school place such a high premium on personal freedom and individual choice it is probably the connotation of "compulsory" that causes so many to at least question such an assumed good as required education for all.

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*We heard such sentiments frequently voiced in our interviews, although it was not a specific question in our interview schedule. We will present a separate analysis of the interview material in a later section of this report.

College and Career Plans

We asked the pupils to indicate their main reasons for going to college, if they were decided, or if they were not planning to attend college what reasons might change their mind. The results are summarized below. There are three equally prominant reasons in the city school, and two each in the suburban and the private school.

"Important Reasons for College/or Important Reasons that might change your mind in favor of going to college."

School A	School B	School C
"My parents want me to go"	"A college degree is necessary for my career"	"A college degree is necessary for my career"
"A college degree is necessary for my career"	"I would be able to earn more money"	"Enjoy learning for its own sake"
"I would be able to earn more money"		

Since practically all pupils in Schools B and C were planning for college their reasons can be considered as actual motives for college. Again the split is apparent between the two schools not in terms of the necessity of college for a career but in the other equally prominant reason. The suburban pupils see "money" as a reason equal to career while the private school lists "learning for its own sake" with equal importance to career. In the urban school, of course, the results cannot be interpreted so directly since the majority of pupils were not planning for college so that their stated reasons, are mostly reasons why they might change their mind. Perhaps in that context it is understandable why all the reasons they state are largely extrinsic - to please parents, to earn more money, or functional as necessary for career entry.

Reasons for Not Going to College

We asked the pupils to tell us their main reasons for not going to college it they had decided not to continue their education. Since almost all pupils in the suburban school and private school had indicated an interest in college, the analysis of reasons for not going was focused on the pupils in the urban school. Of the boys, three sets of reasons for not going were equally prominant: "I don't think I have the ability"(N=8), "I couldn't afford it" (N=6), and "I plan to enter the service and then decide"(N=7). For the girls the main reasons were: "Ability" (N=10), "I don't like to study" (N=7) and "I never considered going to college" (N=6).

Since the academic and/or intellectual ability of the city school pupils was moderate, and so few were enrolled in a college prep program, their stated reasons appear confirmatory.

Types of Careers Planned

We asked the students to list the careers they were presently considering. The pupils in the urban school tended to list one or two rather specific occupations. In the suburban school there was a slightly greater number mentioned and in the private schools the pupils listed multiple careers. We examined the content of the careers listed and in addition to the simple numerical differences across the three schools, inspection revealed substantive differences as well. In the city school most girls were planning careers as a secretary or general office work. The boys tended to list a mixture largely of skilled labor and technical jobs with a few aspiring to professions. In some instances the city boys would list two or three careers that were somewhat disparate e.g. "Either a commerical artist or an engineer," "Astronomer, chemist or bookkeeper," "A doctor or an IBM machine operator."

In the suburban school the girls tend to choose teaching or nursing while the boys named careers in business (accounting), law or engineering predominantly.

In the private school the girls aspired to careers in social work, teaching, psychology and a few in medicine, while the boys chose careers such as creative or performing arts, college teaching or professions such as medicine, law or diplomacy.

With this career choice content we then asked the pupils about their career or job values - what they might be looking for in selecting a job. The items in the Questionnaire contained groups of reasons including extrinsic and instrumental reasons, concomitants and intrinsic motives. The results are summarized below in rank order of importance (1=most important and 2=second).

"Which two of the following list of things are most important to you in your choice of job?"

School A		School B	
Boys	Girls	Boys	Girls
1. Work that seems important to me	1. Meeting and working with sociable, friendly people	1. Job security	1. Work that seems important
2. A good income to start off within a few years	2. Work that seems important to me	2. A good income	2. Meeting and working with sociable friendly people

School C	
Boys	Girls
1. Work that seems important	1. Work that seems important
2. Freedom to make my own decisions	2. Freedom to make my own decisions

In the city school both boys and girls ranked "Work that seems important" as significant. These pupils, however, differed on the second reason, the boys choosing a good income, while the girls selected a work concomitant - friendly, sociable people.

In the suburban school the boys and girls indicated separate sets of reasons. The boys chose "security" and "income" while the girls selected "important work" and "sociable, friendly people." This may relate to the kinds of jobs these same students listed on the previous page. The boys in the suburban school listed jobs in areas which connote security, stability and position. On the other hand the girls who value "important work" and "sociability" had listed careers, especially teaching and nursing, with substantial "interpersonal" relations.

In the private school both groups of students chose the same two reasons in the same order - "important work" and "freedom." And the content of their career interests seems compatible with these values, although more so for the boys than the girls. The boys listed more careers in which success would depend singularly on independent initiative and "freedom" than did the girls.

In this section we have focused on school activities (homework), interest in academic subjects and reasons for aspiring or not aspiring to college and career interests. The results demonstrate particular differences across the three schools. Probably the single finding in this section that is most worthy of note is the high rate of rejection of academic subjects by the pupils in both the urban and suburban public schools. Also particular differences appeared in reasons for college, types of careers planned and whether or not the pupils question the value of compulsory school attendance.

Part III

The Adolescent Culture:
Student Attitudes Toward School and Peers

In this section of the Questionnaire we wanted to focus particular attention on the "peer group." What are the elements that together make up the value dimensions of adolescents? What are the things they want to be remembered for? What are aspects of adolescent popularity - the "in-group" or the "leading crowd?" In order to gain information in this area we used some of the same questions Coleman had used in his study of adolescents. This way we could also see how our groups of adolescents compared with some of his findings.

The first question in this group asked the students to choose among various activities in school for which they would most like to be remembered. This is an attempt to depict the kinds of images that adolescents may want to leave behind for future generations of adolescents to know about them. The question is also a means to underscore the particular saliency of the secondary school itself and the main values connected specifically to that point in time.

"If you could be remembered here at school for one of the four things below, which one would you want it to be?"

	School A		School B		School C	
	B	G	B	G	B	G
	N=28	29	29	27	27	31
Brilliant student	8	11	9	8	20	18
Star athlete/cheerleader (boys) (girls)	10	4	14	3	0	0
Most popular	9	8	5	8	6	6
Class officer	1	6	1	8	1	7

The most obvious school differences appear in the first two categories, 19 pupils in the urban school, 17 in the suburban and 38 in the private school wanted to be remembered as a brilliant student (more than double the number in the first two schools).

In the public schools, both the urban and suburban, the boys want to be remembered for their prowess in athletics or as "popular." These two categories account for two-thirds of the boys in both schools. This squares closely with Coleman's work where just over two-thirds of his sample indicated "athlete/popular" in that order. The private school boys are completely disparate. Their overwhelming choice was "student." Since this difference was so stark we asked at the school itself. The boys evidently are very interested in individual athletics, skiing, riding, tennis etc., but not much in the more organized sports. In fact it turned out that in the winter of our data gathering, the students had decided to disband the basketball team in order to have space for play rehearsals. This is noteworthy particularly because it was a student decision.

For the girls, again the pattern of similarity emerges in both the public schools and the Coleman findings. Popularity, student leadership and brilliant student are similar in terms of relative importance for the girls. Cheerleading is not considered as significant for girls as athletics were for boys.

For futher elaboration of the elements involved in "popularity," Table III-7 presents the results of a question focused on aspects of group "popularity" and implicitly group "approval."

TABLE III-7

"Among the crowd you go around with, which of the things below are important in order to be popular in the group?" Circle the four most important.

	School A		School B		School C	
	Boys	Girls	Boys	Girls	Boys	Girls
Be a good dancer/ Sharp dresser	14	20	13	17	8	8
Have a good reputation	18	27	15	19	12	5
Stir up excitement	12	6	14	12	13	17
Have money	3	4	4	2	3	2
Smoke	1	1	1	2	2	4
Be up on cars	5	1	8	0	0	0
Know what's going on with popular singers & movie stars	3	4	6	5	3	0
Be a good student	6	12	12	10	18	15
Be an athletic star	5	0	7	0	1	0
Be a leader in activities	5	9	8	9	13	13
Be from the right family	6	9	4	4	0	1

Because the pupils were asked to circle four of the eleven items, the totals are larger than the sample size. This is similar to plural voting, but when it comes to adolescent perceptions of "popularity" we wanted to include a latitude for responses. Thus the results can be viewed as general patterns across the three schools in a relative sense. For example, in School A, boys most frequently "vote" for "Have a good reputation," "Be a good dancer/sharp dresser," and "Stir up a little excitement." They see as relatively irrelevant such dimensions as "Smoke," "Know what's going on with popular singers etc.," and "Have money." In fact the distribution of responses in all categories except the three most

TABLE III-8

Elements of Popularity Patterns

	School A		School B	
	Boys	Girls	Boys	Girls
High Value	1. "Good Reputation 2. "Dancer/Dresser" 3. "Excitement"	1. "Good Rep" 2. "Dancer..." 3. "Good Student"	1. "Good Rep" "Dancer..." "Excitement" "Good Student"	1. "Good Rep" "Dancer 2. "Excitement "Student"
Low Value	1. "Smoke" 2. "Know what's going on, singers/ movies "Money"	1. "Smoke" 2. "Know..." "Money"	1. "Smoke 2. "Money" "Right Family"	1. "Smoke" 2. "Money"

	School C	
	Boys	Girls
High Value	1. "Student" 2. "Leader" "Excitement" "Good Rep"	1. "Excitement" 2. "Student" 3. "Leader"
Low Value	1. "Cars" "Right Family" 2. "Athlete" " Smoke"	1. "Know..." "Right Family" 2. "Money"

frequent is so low to indicate that all these other dimensions may be relatively unimportant.

For the girls in the same school the pattern is somewhat similar. However, "Have a good reputation" is not only important to these girls, but with a greater frequency than for any other group. Also important to these girls is the "Sharp dresser/dancer" category with "Be a good student" a distant third. In School B for the boys there seems almost a four-way tie among "Good reputation," "Sharp dresser etc.," "Stir up excitement," and "Good student." Least important was "Smoke," "Money," and "Family." For the girls in School B two aspects seem most important, "Reputation," and "Sharp dresser etc." with "Excitement" third just ahead of "Good student" and "Leader in activities."

In School C the pattern changes. Most frequent for the boys was "Good student" with "Leader," "Excitement," and "Reputation" virtually tied for second place. For the girls a similar grouping appears with "Excitement," "Student," and "Leader" most frequent in that order.

Table III-8 represents an attempt to combine the results into "popularity" patterns which are highly valued vs those with low value.

There is homogeneity within each school on the "High Value" clusters. In the urban school "Good Reputation" and "Dancer/Dresser" apparently represent a major domain of popularity. In the suburban school the domain is similar in that "Reputation" and "Dancer/Dresser" again appear as highly valued. In School C, however, the domain is substantially different with "Good Student" and "Leadership" as the main elements which distinguish the pupils from those in the other schools. It is perhaps noteworthy that

"Stir Up Excitement" seems almost as the common element across all the schools.*

In the "Low Value" category the main clusters are "Smoke" and "Money" in all three schools. Differences across the schools are less striking. Only "Athlete" and "Cars" appear singularly by School C boys.

Taken as a whole, these elements of popularity may represent the things that adolescents in groups talk about, engage in and value. That is, when they look at another adolescent and consider whether he's "acceptable" these aspects might represent their "system" or base-line for judgment. With the exception of the private school, it is relevant to note that these elements could be acquired by practically any adolescent. In this sense there is a kind of "democratic" quality to them - to stir up excitement, be a sharp dresser and good dancer, to have a good reputation. In the same way such elements are highly visible manifestations.

However, the "democratic" quality of such dimensions of popularity may also be viewed in other ways. To emphasize appearance (e.g. a sharp dresser) may promote within the adolescent subculture an over-reliance on the visible and the superficial. To be "in" may require a particular kind of appearance and serve to prevent the emergence of individuality. If there is any significance to the theory that an adolescent exchanges the domination from parents for the domination by peers as he moves from childhood to teen-age status, we may see in this process the precursor of adults who value "keeping up with the Joneses." The significance of a "good reputation" may also fit into this peer group syndrome of domination. It is, however, most difficult to completely understand the meaning of a good reputation among teenagers. There is an indefinable quality about the word and yet clearly it is important in the two public schools for both sexes, and it is most important for the girls. This suggests that reputation involves not being considered "cheap." As Coleman notes, especially for girls, a good reputation includes "Something about the way a girl handles herself, quite apart from what she actually does" (Coleman, 1961, p. 38). This may serve to promote an increasing concern among adolescents as to how other adolescents view them and whether an individual's reputation is "acceptable" to others.

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*The single exception seems to be the city girls. Perhaps their high frequency in "Good Reputation" accounted for the low "vote" for "Excitement."

Coleman takes particular note of the issue of peer group domination and the emphasis on the superficialities of dress, looks and reputation. Our results generally confirm the existence of such a "social climate" among adolescents but only in the two public schools. In the private school the dimensions of importance imply the exercise of special talent, e,g. to be a "good student," a leader in activities or what might be termed personal expressiveness - "stir up excitement." Since the latter dimension also appears with a relatively high frequency in the public schools as well, it is probably the domain of intellectual achivement and/or personal leadership that most significantly differentiates the private school pupils from those in the other schools.

As usual there are some anomolies in addition to the general trends. For example in the previous question, "If you could be remembered here at school..," one-third to almost one half of the boys in the urban and suburban schools denoted "Athlete." Yet when we ask these same pupils, what are the "things" necessary to be popular with the "group," athletics appeared relatively unimportant, coming far down the list. Rather than taking this as simply an indication of "adolescent instability," it may be an indication of the subtle but persuasive differences in connotations attributed by adolescents. The "If you could be remembered..." question may tap into the "secret" or the hypothetical or the fantasy, e.g. "If anything were possible, I'd sure like to be a hero." The "popularity" question may be of a different order - the current reality of the "in-group" norms. Obviously not many can make it as a star athlete and perhaps this item indicates that the boys know it and that it's not essential to group acceptance or popularity. Status, popularity, secret desires etc. may indeed form a complex of attitudes that appear inconsistent, only if we don't keep in mind the possible differences in connotation attributed by adolescents.

A third question of attitudes focused on the future, rather than the time focus of the previous two items. The results again are revealing and at first glance somewhat inconsistent.

TABLE III-9

"Different people strive for different things. Here are some of the things you have probably thought about. Among the things you strive for during your high school days, just how important is each of these?"

	School A	School B	School C
Most Important	"Pleasing my parents"	"Preparing for job or college"	"Learning as much as possible in school"
Least Important	"Being accepted and liked by other students"	"Being accepted and liked etc."	"Being accepted and liked etc."

Since the item deals with concepts of "striving" and goals, it may be tapping the domain of future values. The first question in this segment had to do with the past e.g. what would you like to be remembered for? The second item focused on the present e.g. what does it take to be popular? The third item connotes a focus on the future - what should you strive to achieve? The results seem to indicate both a set of clear-cut differences and similarities. "Most important" at the urban school is to "Please parents." The suburban pupils rate "preparation" most important. The private school pupils select a different dimension as most important, "Learning as much as possible in school." These goals are most certainly distinctively different and quite obviously imply vastly different motives for school. If one's main purpose in school is to please parents, the values are compliant and other-directed e.g. my parents want me to go to school and graduate. Thus the focus is on outcome. In an analogous sense the suburban pupils are also focused on an outcome and view school in functional terms - to prepare for college/job, again extrinsic in focus. The private school pupils, on the other hand strive for present learning. Thus the differences are broad. At the same time apparently there is some unity in terms of "least" important goals. The pupils in all the three school rate "Being accepted and liked by other students" as an unimportant goal. Perhaps they are saying being accepted is something that you can't strive for, you either are "accepted" or not. In this regard it may be most relevant to consider the question on the so-called "leading crowd." It is in this item that we see, especially in the urban and suburban schools, how many of the pupils consider themselves to be "outsiders" who wish to be "in."

We asked the pupils first, to tell us how "far" from the center of things they were.

> "Suppose the circle below represented the activities that go on here at school. How far from the center of things are you?"

	School A		School B		School C	
	Boys	Girls	Boys	Girls	Boys	Girls
Place						
The Center or One Place Removed	5	5	8	4	7	9
Two or Three Places Removed	14	18	14	22	21	24
Four Places Removed	10	8	8	4	1	4

We then asked them where they would like to be. By combining the data from these two items we could then derive an index of dissatisfaction, or desire to change places, by looking at the numbers of pupils who want to move closer to the "center of things."

TABLE III-10

Expressed Desire to Move Toward the Center of Things*

	School A		School B		School C	
	Boys	Girls	Boys	Girls	Boys	Girls
Stay where I am	11	4	12	5	15	19
Move "in" one place	7	9	8	15	5	13
Move "in" two or more places	9	15	7	10	7	4

*Some students indicated they wanted to move "out:" A boy and 3 girls in School A, 3 boys in School B, and 2boys and 2 girls in School C.

Thus, as the Table indicates, only in the private school do the majority of pupil wish to remain where they are. Most pupils in both the urban and suburban school desire to move in at least one "place" closer to the center of things. It is also interesting to note, in both those schools, girls are the least content to stay where they are - only 4 of 31 in School A and 5 of 30 in School B choose this option.

There is apparently a discontinuity or incongruity in these findings. While the students in all 3 schools agree that they don't strive for acceptance by the "group," they would still nevertheless like to be closer to the center of things - a trend most apparent in both the urban and suburban schools.

This may confirm our earlier suggestion that acceptance by the group is not something a teenager can deliberately strive for! Perhaps it also connotes that any particular teenager has to wait to be "tapped" by the leading crowd. In both public schools there is evidently greater personal feelings that one may be on the "outside." Also in these same schools the dissatisfaction with one's present "place" is highest for the girls. We had noted earlier that the girls in these same schools manifested the greatest concern over the importance of a "good reputation" as well as being a "good dancer and sharp dresser." The interrelation between the popularity values and the adolescent's self-definition is apparently quite strong. In the private school the students seemingly value academic work and student leadership and in general are more content to stay where they presently "are" in the subculture. While in the public schools there seems both greater personal unrest and a greater concern for the views that "other" adolescents hold.

For further clarification on the issue of the leading crowd, the influence of cliques and the importance of being accepted, we asked the pupils to tell us in their own words, "What does it take to be in with the leading crowd in your school?"

In the urban school the boys defined the leading crowd as emphasizing social aspects, dress, presonal popularity, e.g. "To dress college," "Be ready to do what they want to do," "Be friendly," "Act cool," "Be liked," "easy to get along with..." Only a few boys mentioned either academic achievement or athletic achievement.*

The girls in the urban school described in much greater detail than did the boys, a leading crowd that emphasized social conformity, peer domination, dress and (again) reputation. In fact it was most common for these girls to group three elements as necessary - personality, reputation and dress. These are the elements which lead to popularity and "being accepted;" "To smile and be friendly," "Do what they do," "Put yourself out," "Go the places they go," "Be likeable and do what they do." Also there seemed to be an element of striving in comments like, "If you proved to be a great help, you would be wanted." Also there seemed to be very little questioning among the girls that there might be alternatives. Only two stated rather emphatically an individualistic stance, "You be yourself" and "The individual determines his own."

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*As always there is at least one particularly poignant comment to a question like this, "I don't really know. I would like to be very much, but I can't seem to succeed."

In the suburban school the leading crowd was described again largely in social terms. For the boys there seemed to be an undercurrent of bitterness and sarcasm. They used phrases like, "You gotta be rich," "Have a new car," "Status and material things." Or the boys indicated a direct negative disdain, "You gotta be a jerk," "A big shot," "A snob," "It's for jerks," "Be immature." Only a few mentioned perhaps the more usual elements of, "A leader in activities,"(1), "Likeable" (2), or "Popular (2). This seemed to indicate a strong negative response by the pupils to what they perceived as the social climate of the school. They viewed it as stressing status and material possessions and they didn't like it!

For the girls in the suburban school there seemed to be a similar definition of the social determinants of the leading crowd yet without the strong undercurrent of negativism. The girls frequently mentioned belonging to one of the school's sororities, or good looks, money or fashionable clothes, e.g. "Clothes that spell money," "Sorority, clothes and money," "Popularity and clothes," "Personality, looks and money" etc. One girl mentioned intellectual achievement.

In the private school both the boys and girls emphasized that they doubted the existence of any particular leading crowd. In fact one third of both groups said specifically there was no leading crowd. Most said that the school itself was composed of individuals and it was important to be yourself. When they did comment on elements of importance they used phrases like, "Intelligence," "Intelligent and knowledgable," "Engage in interesting dialogue," "Have your own views," "Be a nonconformist." While the girls tended to give a similar set of responses in terms of emphasizing the cognitive, there was some tendency for them to indicate more livliness, energy and activity in addition. Thus, "Intelligence and think up new freak outs,"[*] "To be lively and speak out for yourself," "Intelligence and vigor," "Intelligent, unusual and freak-out people," "To be willing to try out new things." In general they particularly suggested individuality, substantial personal energy and a willingness to communicate as the important dimensions of personal identity.

Perhaps there is no clear evidence of the differences across our three schools than that obtained by a simple inspection of the students' own phrases in describing the "leading crowd."

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[*] This young lady penned a note to us, "Freak-out is similar to your quaint phrase - to stir up excitement!" Another young lady kindly added, "There is no leading crowd in this school. Is there one where you are?"

Appendix

Name: ______________________

School: ______________________

Grade: __________ Sex: ____________

Age: Years ______ Months ____________

STUDENT QUESTIONNAIRE

Your answers to the questions on the following pages will be completely confidential. You are to circle the letter beside the most appropriate answer in each case, unless otherwise directed. For example, in response to the question below, you would circle "C" to indicate you were in Grade 11.

Sample Question

1. My current grade in school is

   A. Ninth grade
   B. Tenth grade
   [✓ C.] Eleventh grade
   D. Twelfth Grade

STUDENT QUESTIONNAIRE

1. What is the total number of living children in your family? Include yourself, together with all full brothers and sisters, half-brothers and sisters, stepbrothers and sisters, and foster brothers and sisters. Include those not now living in your home. (Circle one)

   A. One
   B. Two
   C. Three
   D. Four
   E. Five
   F. Six
   G. Seven or more

2. Who is the breadwinner in your family; that is, who provides the main source of support? (Circle one)

   A. Mother
   B. Father
   C. Someone not listed above

3. Which one of the following comes closest to describing the work of your father (or the male head of your household)? Mark only one answer. If he works on more than one job, circle the one on which he spends most of his time. If he is now out of work, or if he is retired, circle the one he did last.

   A. Workman or laborer--such as factory, farm or mine worker, fisherman, filling station attendant, longshoreman, etc.
   B. Private household worker--such as servant, butler, etc.
   C. Protective worker--such as policeman, detective, sheriff, fireman
   D. Service worker--such as barber, beautician, waiter, etc.
   E. Semi-skilled worker--such as factory machine operator, bus or cab driver, meat cutter, etc.
   F. Skilled worker or foreman--such as a baker, carpenter, electrician, enlisted man in the armed forces, mechanic, plumber, plasterer, tailor, foreman in a factory or mine (but notfarm), etc.
   G. Clerical worker--such as bank teller, bookkeeper, sales clerk, office clerk, mail carrier, messenger, etc.
   H. Technical--such as draftsman, surveyor, medical or dental technician, etc.
   I. Salesman--such as real estate or insurance salesman, factory representative, etc.
   J. Manager--such as sales manager, store manager, office manager, business manager, factory supervisor, etc.
   K. Official--such as manufacturer, officer in large company, banker, government official or inspector, etc.
   L. Proprietor or owner--such as owner of a small business (less than 15 employees) wholesaler, retailer, contractor, restaurant owner, farm owner, etc.
   M. Proprietor or owner of large business (more than 15 employees).
   N. Professional--such as actor, accountant, artist, clergyman, dentist, engineer, lawyer, librarian, scientist, etc.
   O. I don't know.

2

4. Is your mother a housewife only? (Circle one)

   A. Yes
   B. No

5. If your mother works, does she work (Circle one)

   A. Part-time
   B. Full-time

6. If she is employed, which one of the following comes closest to describing the work of your mother (or the female head of your household)? Circle only one answer. If she works on more than one job, circle the most important one. If she usually works, but is now out of work, circle the one that she did last.

   A. Worker or laborer--such as charwoman, laundry worker, farmer.
   B. Private household worker--such as housekeeper, maid, laundress, etc.
   C. Protective worker--such as policewoman, etc.
   D. Service worker--such as beautician, waitress, etc.
   E. Semi-skilled worker--such as factory machine operator, cab driver, etc.
   F. Skilled worker or forewoman--such as baker, inspector, etc.
   G. Clerical worker--such as bookkeeper, secretary, typist, sales clerk, store clerk, etc.
   H. Technical--such as draftsman, medical or dental technician, etc.
   I. Sales--such as real estate, life insurance, etc.
   J. Manager--such as sales manager, store manager, office manager, business manager, factory supervisor, etc.
   K. Official--such as manufacturer, officer in a large company, banker, government official or inspector, etc.
   L. Proprietor or owner of a small business (less than 15), wholsaler, retailer, restaurant owner, etc.
   M. Proprietor or owner of a large business (more than 15 employees).
   N. Professional--such as actress, accountant, artist, dentist, physician, engineer, lawyer, librarian, scientist, etc.
   O. I don't know.

7. Circle the one answer indicating the highest level of education your father reached. Circle the one best answer even if you are not sure.

   A. Attended grade school
   B. Some high school, but did not graduate
   C. Graduated from high school
   D. Vocational or business school after high school
   E. Some junior or regular college
   F. Graduated from a regular 4-year college
   G. Master's degree
   H. Some work toward doctorate or professional degree
   I. Completed doctorate or professional degree
   J. I don't know.

8. Circle the one answer indicating the highest level of education your mother reached. Mark the one best answer even if you are not sure.

   A. Attended grade school
   B. Some high school, but did not graduate
   C. Graduated from high school
   D. Vocational or business school after high school
   E. Some junior or regular college
   F. Graduated from a regular 4-year college
   G. Master's degree
   H. Some work toward doctorate or professional degree
   I. Completed doctorate or professional degree
   J. I don't know.

9. Which one of the following high school programs or curriculums is most like the one that you are taking? If you have not yet been assigned to a program which do you expect you will take? (Circle one)

   A. General--a program that does not necessarily prepare you either for college or for work, but in which you take subjects required for graduation and many subjects that you like.
   B. College Preparatory--a program that gives you the training and credits needed to work toward a regular bachelor's degree in college.
   C. Commercial or Business--a program that prepares you to work in an office; for example as a secretary or bookkeeper.
   D. Vocational--a program that prepares you to work in a shop or factory or to enter a trade school, or become an apprentice after high school.
   E. A program very different from the above.

10. How many times have you changed school systems (for example moved from one town to another) since starting the 1st grade? (Circle one)

    A. Never
    B. Once
    C. Twice
    D. Three times
    E. Four times
    F. Five or more times

11. How many days were you absent from school in the last school year (September 1965 to June 1966)? (Circle one)

    A. None
    B. One to four days
    C. Five to nine days
    D. Ten to fourteen days
    E. Fifteen to nineteen days
    F. Twenty or more days.

12. If school were not compulsory, and it were completely up to you, would you . . . (Circle one)

    A. stay in school until graduation?
    B. leave school before graduating?
    C. don't know.

13. If you could be remembered here at school for one of the four things below, which one would you want it to be? (Circle one)

    A. brilliant student
    B. star athlete (boys) - cheerleader (girls)
    C. most popular
    D. class officer

14. Of all the subjects you've studied here at school, are there any you would like to follow up in later life, just for pleasure? (Circle one)

    A. Yes
    B. No

    If yes, which one? ______________________________

15. How much time, on the average, do you spend doing homework outside school? (Circle one)

    A. none, or almost none
    B. less than 1/2 hour a day
    C. about 1/2 hour a day
    D. about 1 hour a day
    E. about 1 and 1/2 hours a day
    F. about 2 hours a day
    G. 3 or more hours a day

16. Suppose you had an extra hour in school and could either take some course of your own choosing, or use it for athletics or some other activity, or use it for study hall. How would you use it? (Circle one)

    A. course
    B. club or activity
    C. athletics
    D. study hall, to study
    E. study hall, to do something else

17. Among the crowd you go around with, which of the things below are important to do in order to be popular in the group? Circle the four most important.

A. be a good dancer
B. be a sharp dresser
C. have a good reputation
D. stir up a little excitement
E. have money
F. smoke
G. be up on cars
H. know what's going on in the world of popular singers and movie stars
I. be a good student
J. be an athletic star
K. be a leader in activities
L. be from the right family

18. Different people strive for different things. Here are some things that you have probably thought about. Among the things you strive for during your high school days, just how important is each of these?

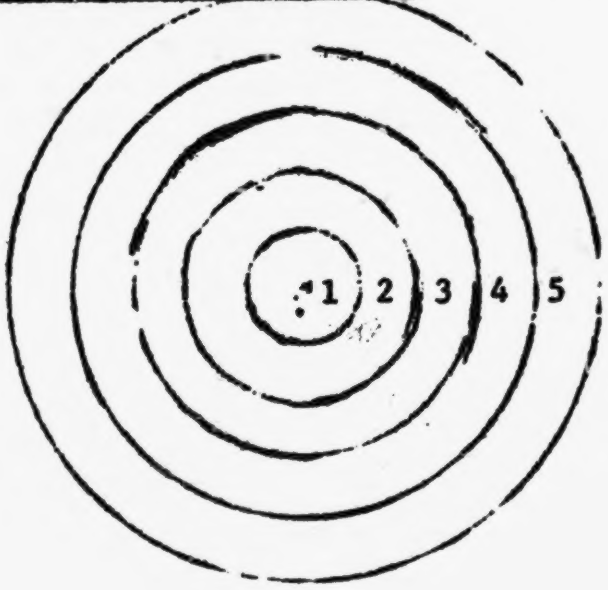
(Rank from 1 to 4: 1 for the highest in importance to you, 2 for the second highest, 3 for the third highest, and 4 for the lowest.)

_____ A. pleasing my parents
_____ B. learning as much as possible in school
_____ C. preparing for job or college
_____ D. being accepted and liked by other students

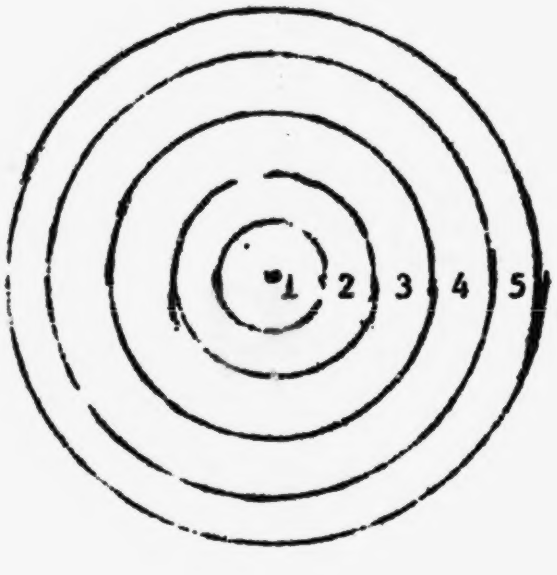
(go on to next page)

19. **Suppose the circle below represented the activities that go on here at school. How far out from the center of things are you?**

(Circle the number where you think you are)



20. **Now in the circle below, circle the number where you would like to be.**



21. **What does it take to get in with the leading crowd in your school?**

22. What is the greatest amount of education you expect to have during your life? (Circle one)

A. I don't expect to finish high school.
B. I expect to graduate from high school.
C. I expect to obtain vocational, business school, or junior college training.
D. I expect to obtain some (less than 4 years) regular college training
E. I expect to graduate from a regular four=year college.
F. I expect to study for advanced college degrees.

23. If you are not planning four years of college, or if you think you might not go, how important would each of the following be in changing your mind in favor of going to college?

If you are planning four years of college, or if you think you may go, how important to you is each of the following as a reason for going to college?

(Rank from 1 to 10: 1 for the highest in importance to you, 2 for the second highest, 3 for the third highest, and so forth.)

____ A. A college degree is necessary for the kind of career I plan to enter.
____ B. My parents want me to go to college.
____ C. I would be able to earn more money as a college graduate.
____ D. I want to go to college because I don't know what I want to do as yet.
____ E. I want to meet the kind of person I would like to marry.
____ F. I enjoy learning for its own sake.
____ G. My teachers think that I should go to college.
____ H. I expect to get into college athletics.
____ I. Many of my friends are going to college.
____ J. I want to participate actively in college life.

24. If you are not planning to go to college at all, answer the following question.

(Circle the most important reasons why you are not going to college. Circle as many as apply.)

A. I never considered going to college.
B. I couldn't afford it.
C. Most of my friends aren't going to college.
D. I don't think I have the ability.
E. I don't need a college education.
F. My parents haven't encouraged me.
G. The school wouldn't give me a good recommendation.
H. I don't like to study.
I. I'm getting married.
J. I plan to enter the service and then decide.

25. How many different occupations have you seriously considered entering? (Circle one)

A. None
B. One
C. Two
D. Three
E. Four
F. Five or more

Please list the occupations you have seriously considered: ____________________

____

____

26. How definite is your present choice of an occupation? (Circle one)

A. Completely decided
B. Very definite
C. Fairly definite
D. Fairly indefinite
E. Very indefinite
F. Completely undecided

27. What grade were you in when you decided upon your present choice of an occupation? (Circle one)

A. I have not decided upon an occupation.
B. 6th grade or earlier
C. 7th or 8th grade
D. 9th grade
E. 10th grade
F. 11th grade

28. Which two of the following list of things are the most important to you in your choice of a job? (Circle two)

A. Good income to start or within a few years
B. Job security and permanence
C. Work that seems important to me
D. Freedom to make my own decisions
E. Opportunity for promotion and advancement in the long run
F. Meeting and working with sociable, friendly people
G. Other ____

____

Chapter IV

STUDENT ATTITUDES TOWARD SCHOOL: THE STUDENT OPINION SURVEY

Development of the Student Opinion Survey (SOS)

The SOS was developed as a measure of attitudes and reasons for learning and studying. The final form of the survey was composed of thirty-two statements using a Likert-type scale of 6 points on an agree to disagree continuum. We also included a space by each question for a comment in order to provide an opportunity for a pupil to elaborate on his answer if he so chose.

The statements we selected for the questionnaire were derived from two sources, one empirical, the other based on previous research work. To gain an understanding of the range of attitudes and perceptions among high school pupils, we mailed an open-ended questionnaire to students in eleven high schools across the country. The schools were randomly chosen. We wrote to the heads of the science programs in these eleven schools and asked them to administer the questionnaire to a random group of about 100 students in their high school. The questionnaire itself is in Appendix B of this chapter. We asked the students to tell us in their own words their reasons for being in school, what they expect to "get" out of school, why they must stay in school etc.*

Inspection of these statements which totaled some eleven hundred revealed a substantial number of responses that could be classed as negative attitudes toward school, "This school is just boring," "I can't wait for the bell to ring." Some were more dramatic, "The school is just like a prison except that we have teachers for guards." Although it was necessary to change some of the wording, we decided to include a series of statements that would reflect these sentiments in our SOS. In this way we could measure the extent to which pupils in the research sample would agree of disagree with such items and also allow them to comment in their own words on these statements.

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*The states included were: Washington, California, Hawaii, North Carolina, Missouri, Florida, New York and Massachusetts. However, no attempt was made to systematically survey a representative sample of all schools in the nation.

In a similar way we selected statements from the open-ended questionnaire which tended to reflect a genuine interest in learning. Although much less interesting, from a provocative standpoint, there were throughout the questionnaire, statements that indicated some students were interested in school learning, "Many of my classes are interesting," "Sometimes I talk over the ideas that were discussed in class," "I enjoy reading and discussing things in class." On this basis we constructed a series of questions designed to "get at" their perceptions of intrinsic interest in learning.

A third class of items emerged from pupil statements concerned with the importance of studying for grades. Pupils made comments such as "Around here the most important thing to do is to make sure you get good grades." It seemed to us that attitudes like this appeared with sufficient frequency to merit inclusion in the Survey. We were intrigued to find out how the pupils in the research sample would view such statements blatant as these statements seemed to be.

Although much less directly, we thought we also detected in some of the pupil comments, ideas about learning that were somewhat prescriptive - "You have to learn what the teacher tells you" - "Teachers tell us how we're to think" - "Your answers have to agree with theirs." This reminded us of some previous research by Perry (1968) and Stern _et al._, (1956). Perry had denoted this tendency as a type of adherent thinking, e.g., a quest for a single "right" answer. Stern's work on stereotyped thinking was certainly analogous. As a result we derived statements such as, "In learning it's better to follow a tried and true method, etc." "A student shouldn't disagree with a teacher's interpretation of a book."

The final cluster of questions was derived on a much more inferential basis. As a result of Strodbeck's early work (1958), and more recently in some of Coleman's work (1966), as well as in a previous investigation by one of the members of the research team (Sprinthall, 1963), we thought it important to include items that would tap ideas that students had about themselves in terms of self-direction and self-mastery. There were a few comments in the questionnaire that indicated a kind of despair and hopelessness in outlook - "I don't have a chance in school," - "Here the cards are stacked against you." We were particularly interested in items such as this because of Coleman's recent and provocative findings that this dimension bore such a direct relationship to school achievement regardless of the setting of the school.

Pre Test

Largely on the basis of inspection and some ideas from previous research we constructed a Survey with five main dimensions, represented by a series of questions: (1) Negative attitudes to school. (2) Intrinsic interest in learning. (3) Extrinsic reasons for study. (4) Adherent or stereotyped thinking. (5) Self-directed learning. We devised a trial form of the Survey that we used with groups of eleventh grade pupils from schools not in the study. As a result of the pre-testing we changed some of the wording of the items for clarification of meaning. Also a factor analysis of the pre-test survey indicated that the clusters of questions which we had constructed seemed to group consistently. The analysis also indicated that some of the questions we had devised apparently had little meaning for the pupils. We dropped two of the original questions because inspection indicated that all the pupils in the pre-test disagreed with the items. In other words, the item responses showed no spread across the sample. For example, not one student agreed with the statement, "I'd be happy if I never saw another book again." Thus the item was dropped. It was either too socially desirable to disagree with the statement, or too blatant an item to take seriously.

We made no attempt to establish test re-test reliability for the Survey since similarly worded scales in previous research had established sufficient reliability for the procedure.*

3. Final Form: Analysis

The final version of the Survey consisted of thirty-two statements (see Appendix A). Each of the five sub-dimensions of the scale was composed of six or seven questions. After administering the instrument to all the pupils in the sample, we submitted the results to factor analysis for confirmation of the clusters of questions we have devised.

We used a principal components analysis with 1 as the estimate of communality. Inspection of the factor loadings and the percentage of trace described by the principal components solution indicated that the Survey contained four factors. These four accounted for forty-three percent (43%) of the trace. Additional factors beyond the first four were accounting for between one and two percent each of the trace and thus were dropped from the second stage of analysis.

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*Perry, using a similar instrument with a college-age population, and Strodbeck with a high school sample, have indicated the relative consistency over time of this type of attitude or opinion survey.

We next submitted the principal components results to rotation using the varimax criterion. Inspection of the individual item correlations from principal components indicated that rotation was the appropriate next step. Using four factors, the rotation was performed. Table IV-1 presents the results. In general we looked for two criteria in assigning the items to a specific factor. First, we set approximately + - .50 as the required loading size. In the second place, we looked for gaps in the array of loadings as the cutoff points beyond which we added no further items to the factor. Although, in general loadings of the + - .25 are considered significant, we thought the higher loading figure was justified as a more significant indicator of what we were attempting to measure. There is danger in setting the criterion too low that the overlap would be substantial and this would obscure the meaning of whatever the dimension might be measuring.

Results

Table IV-1 indicates that the Survey is composed of four factors. Immediately this raises the question of what happened to the five clusters of items we built into the scale. There is, of course, no answer. On the basis of inspection of the open-ended questionnaire and some *a priori* notions we had hoped to measure five dimensions of attitudes to learning. On an empirical basis, our research subjects, in a sense, indicated that in their frame of reference they perceived only four clusters of questions. There is a truism about factor analysis which states, "You will only 'get out' (extract) of it what you build in." This truism should now read, in the interest of accuracy, "You get out, your subjects' perception of what you thought you built in." Perhaps this is how it will always be!

Inspection of the item clusters indicates that our original conceptions, however, were not far off. In Factor I we find the questions with positive loadings (Q. 12, 21, 7, 29, and 8 in order of magnitude) reflecting a lack of interest in school learning or negative interest in schooling. Statements such as "Classes don't interest me...," "I can't wait for the bell to ring...," "School learning is boring," "Most of my subjects are very uninteresting," indicate that the items cluster around the concept of active disinterest in school. This represents, then, one segment of the first factor. The other end of this factor was composed of questions with high negative loadings (Q. 1, 9 and 18). These questions reflected the opposite pole of negative interest - "Sometimes I get so involved in class...," "I find many of my subjects quite interesting," "I sometimes remain after class to continue discussions..." Thus, part of the factor could be viewed as representing an intrinsic interest in learning. The first factor then yielded a dimension of pupil attitude toward school from a negative motivation to an active interest in learning. This may indicate that these two dimensions are not separate or discrete categories, but rather opposite ends of a continuum. It should be noted that this was the only factor which contained a polarity after rotation. Inspection of the factor loadings in Table IV-1 indicates that each of the other three factors were composed of loadings with the same sign - e.g., on Factor II the loadings were all negative, Factors III and IV had all positive loadings.

Thus the empirical results indicate that our original view of five factors derived by inspection was erroneous. Because it contained two positions, then, we decided to "name" Factor I as Negative/Intrinsic motivation toward school. Positive factor scores on this dimension indicate intrinsic motivation and negative scores, negative motivation.

The second factor which emerged from our analysis consisted of six statements 24, 26, 19, 28, 32 and 30. The content of the items was similar, "A student shouldn't disagree with a teacher's interpretation...," "I do extra work only if I receive extra credit," "Teachers should ask questions concerned with facts...," "In learning it's better to follow a 'tried and true' method...," "It's more important to make good grades," "I don't mind working hard if I can be assured of high grades." In a sense this factor seemed to measure some kind of "inner" versus "other" directedness. In this case the items all specifically denoted a relation to teachers or school learning. We viewed this factor as measuring an extrinsic and dependent attitude to teachers and school work on one hand, and as indicating independence in learning on the other. In a sense this factor indicates the pupil's conceptions of knowledge. Knowledge can be seen as teacher-dominated, and learning as teacher-directed - to learn "facts," to learn the teacher's interpretation, to learn the "right" track. It is also apparent that pupils relate this attitude to high grades so that the reward for doing as one is told to is to receive commendation in the form of good grades. It is important at this point to remember that it is the pupils' perceptions and responses to all of the items that govern the clustering of items. It is their responses that have combined the two aspects of learning as a teacher-directed and grade-rewarded system. And the opposite holds true. The pupils who disagree with learning as teacher-directed also disagree with a "grade-getting" orientation. It is perhaps a most significant finding that pupils view these two aspects as relatively similar.

The third factor was composed of items 15, 16, and 2, again in rank order by loading. The content of the questions was, "If a person is willing to work hard, he's almost sure to succeed," "A student must first master what is already known...," and "A student who follows definite advice..." This seems to indicate a factor composed of ideas of work and compliance to work hard, learn the "facts" and follow definite advice. Positive factor scores indicate that pupils disagree with these statements while negative factor scores represent the opposite attitude. Since disagreement with the items seemed to indicate a kind of inner-directedness or thinking for one's self and agreement could be viewed as an acceptance of prescription and direction from others, we decided to name this (with apologies to David Reisman) as an inner-directed versus other-directed attitude. It may be that this dimension taps a general attitude of self versus other-direction rather than a specific attitude to school work. It was noteworthy that two of the questions make no specific mention of school, and the third is perhaps an indirect reference.

The fourth factor contained items 25, 4, 20, and 27. "Students like me just don't have much of a chance...," "I find it difficult to study...," "I often feel that I just can't learn," and "Doing work that interests me is more important than good grades." Although it is difficult to fit the last statement with the first three, it is certainly possible to view the first three as indicating a personal pessimism vis à vis school, or a kind of helplessness. It may be that the fourth statement was seen by the pupils as similar to the first three for reasons idiosyncratic to secondary pupils. At least we could speculate that the pessimism in the first three items is also reflected in the fourth - that pupils would like interesting work rather than being confronted by the importance of grades. More particularly, it may make sense to see that pupils who feel they can't learn [and by implication receive poor grades] would agree with the fourth statement, perhaps as a statement of what they would like school to become. Certainly in school, grades represent feedback and evaluation as indicators of how pupils are achieving. As to whether this becomes a self-fulfilling prophecy is at least problematic if not possible.

Negative factor scores indicate agreement with the items, while positive scores indicate the opposite on the dimension we called "pessimism *versus* a sense of personal mastery."

An interesting confirmation of what we thought these factors were measuring appeared in some of the free responses to the various items. For example, a student who scored low on Factor II (a low score indicates independence in thinking about school) wrote comments like:

Q.28 The tried and true item - "Maybe your own will become tried and truer!"

Q.19 The teacher should ask for facts - "My parakeet can recite facts" - and [interesting enough in terms of the connection] "Grades are for the birds."

A student who scored high on Factor III (indicating, we thought, inner-directedness) commented on Q. 16, about students who should master what is already known - "Disagree - Nothing is known that hasn't been taken from the unknown at one time." On Q. 2 about following advice, he noted - "accepting all foreign opinions can cause as much bad as good - they [the opinions] aren't your own."

Of course, some of the students who checked the responses that indicated inner-directedness and thinking for "self" got rather impatient with some of the statements themselves - e.g., in response to the "tried and true" item (Q. 28) one commented after strongly disagreeing - "God, what a farce!" To the item about students should first master the known he commented - "Of course not! This way nobody would ever start forming their own ideas." Obviously some of these students could see the superficiality of statements like this and happily wanted to tell us in no uncertain terms of their own positions.

At the same time the comments by students who scored at the other end of these dimensions lend support to the constructs which we thought we were measuring at that point. For example, one student commented to the item on the importance of mastering what is "known" (Q. 16) - "Agree - Need facts." On the "tried and true" item- "Agree - It's worked for years so why not for me." And on the item about facts and opinions (Q. 19) - "It's bad when you don't know what the teacher wants."

On the negative motivation items, particularly Q. 29 - (Can't wait for the bell) - many comments were noted such as, "The day is too long now," "When I walk out of school then its my time," and "You're not kidding, what a relief to walk away from this place."

Naturally these examples are only for illustrative purposes. In general, the students did not tend to comment with enough frequency to permit a systematic analysis of the content. However the comments that were made seemed to be quite consistent with the question responses. In many cases the comments illuminated our understanding of their attitudes on the various dimensions of the Survey.

Differences Across the Schools

Having established that the Survey contained four factors, we turned next to an analysis of possible differences between the schools. Did the pupils in the three schools respond to the scale with consistent significant differences? To test this out we derived factor scores for each pupil on each of the four factors after varimax rotation. Then we computed a two-way analysis variance of the factor scores by school and by sex (three schools by boys and girls). There are three possible sources of variation that may be statistically significant in the form of the F ratio for schools, for sex, and for the interaction of school and sex. The results are presented in Table IV-2.

The results of the two-way analysis of variance indicate that there were statistically significant differences on three of the four factors. In factors I, II, and III, the differences were significant. On factor IV there were no differences either due to school, sex, or interaction. We had labeled factor IV as "Personal Pessimism Toward School." Since all the Cell Mean Factor Scores cluster around zero, it is apparent that this factor does not differentiate in any meaningful way. In general, the pupils in all three schools are close to the midpoint on this factor. Although the factor does measure a consistent attitude (as indicated from the factor analysis), in this particular study with these particular pupils, it does not distinguish between our groups either by school or by sex.

On Factors I, II, and III there were significant differences. It is important to note that the source of significant variation on all the factors was exclusively attributable to the schools. The F ratios for schools were: Factor I, F = 23.17; Factor II, F = 20.39; and Factor III, F = 7.95. None of the F ratios for sex or for interaction were significant. Thus, on the Survey there were no differences because of sex. Both boys and girls in each school tended to have similar scores on the attitudes we were measuring. While we had originally anticipated that these attitudes might vary according to sex, it made no difference. The important and statistically significant differences were all due to the membership in one of the three schools.

By examining the cell mean factor score distributions we can interpret the direction and the meaning of the school difference.

On Factor I, denoted as Negative Interest/Intrinsic Interest, the private school mean score was + .57.* This indicates that the pupils in that school manifested an intrinsic interest in learning since their scores were positive on the average. The city school was next on this factor. The average score was - .12 indicating a mix of intrinsic interest and negative motivation. Perhaps surprisingly, the suburban school had the highest negative scores on this factor (- .50). This would indicate that in the suburban school, even though there is a high proportion of pupils going on to college, there is a more negative attitude toward learning when compared to the other two schools. The suburban pupils are thus more apt to agree with statements such as, "School learning is boring," and disagree with statements such as, "Sometimes I get so involved in class discussion that I hate for the bell to ring," than the pupils in the other schools.

On the second factor, Dependence on Teachers (or extrinsic concern for grades)/Independence in Learning, the cell means show that the private school had the highest scores on Independence and the city school, the highest scores on Dependence with the suburban school in between. This indicates that the city school pupils' attitudes are those of teacher-directed learning while in the private school the pupils appear as more self-directed and independent in learning.

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*A factor score in over-simplified language is simply the sum of the individuals' scores on the items that compose the factor divided by the number of items. The mean factor score is then simply the average score of all the members of that particular group - in this case all the pupils in a particular school. In this way it is a composite score for each dimension or factor. Each item score is, of course, weighted by the responsive factor loading.

On the third factor, Inner-Directed vs. Other-Directed, the cell mean factor scores indicate that the private school pupils tended to score on the positive side, with the suburban next and the city school on the Other-Directed end as evidenced by the negative scores. The private school pupils more often than the other pupils manifested the tendency to think for themselves. The city school students, on the other hand, agreed with items such as, "A student must first master what is already known," or "A student should follow definite advice, etc." On this factor the suburban school fell between the two extremes indicating a mix of "inner" and "other" directedness.

If we look across all three factors we may see the relationships which have emerged more clearly. The private school students displayed a remarkably consistent set of attitudes. They had the highest scores on the dimension of intrinsic interest in learning, inner-directedness and independence in learning. The city students' attitudes were most significant on two of the three factors - teacher-directed learning and other-directedness in general. These students apparently understand learning mostly as an attitude of following directions or a compliance and adherence to others' views. The suburban pupils' attitudes were in the middle range, considerably below the private school on inner-directedness and independence in learning, yet above the city school. The unusual finding for the suburban school was on the first factor. These pupils' attitudes were furthest from the intrinsic interest in learning. Instead they had the highest scores at the other end of the dimension - negative interest. In fact, in examining the content of the items it is striking the extent to which these statements reflect an active disinterest in school.

In summary, the Student Opinion Survey was developed largely on the basis of open-ended responses from students in many sections of the country. Items were derived and set up in Likert scale form. The items were pretested, and then administered to our research sample. The results were submitted to factor analysis (principal components and then rotation). Factor scores were derived for each pupil for each of the four factors that emerged. Significant differences were found by school only on three of the four factors using a two-way analysis of variance technique. The results indicate that the major attitudes toward school in the two large public schools were a negative interest in school (in the suburban school) or an adherence to teacher direction and an obedience in learning (in the urban school). Only in the small private school did the pupils indicate a strong intrinsic interest and independence in thinking and in learning.

Table IV-1

Student Opinion Survey
Items and Rotated Factor Loadings

Items	Factor I	Factor II	Factor III	Factor IV
	Negative Interest/ Intrinsic Interest	Dependence/ Independence	Inner Directed/ Other Directed	Mastery/ Pessimism
Percent of Trace	(15.95%)	(12.03%)	(7.60%)	(6.50%)
1. Sometimes I get so involved in class discussion that I hate for the bell to ring.	-.681			
2. A student who follows definite advice will most likely make best use of his time and talents.			+.495	
3. --				
4. I find it difficult to study for tests.				+.606
5. --				
6. --				
7. School learning is boring.	+.717			
8. I usually study only when I know there's going to be a test.	+.503			
9. I find many of my subjects quite interesting.	-.674			

Table IV-1 (Cont)

	Factor I	Factor II	Factor III	Factor IV
10. —				
11. —				
12. Most of my subjects are very uninteresting	+.761			
13. —				
14. —				
15. If a person is willing to work hard, he's almost sure to succeed.			+.752	
16. Students must first master what is already known before they start forming opinion of their own.			+.615	
17. —				
18. I sometimes remain after class to continue discussions with my teacher.	-.515			
19. Teachers should ask questions more concerned with facts than with student opinions or interpretations.		-.623		

Table IV-1 (Cont)

	Factor I	Factor II	Factor III	Factor IV
20, I often feel that I just can't learn.				+.551
21. For some reason my classes just don't interest me very much.	+.720			
22. —				
23. —				
24. A student shouldn't disagree with a teacher's interpretation of a book.		-.644		
25. Students like me just don't have much of a chance to get ahead.				+.622
26. I do extra work only if I receive extra credit for it.		-.633		
27. Doing work that interests me is more important than getting good grades.				+.493
28. In learning it's better to follow a "tried-and-true" method than to try and find one of your own.		-.586		
29. I can't wait for the bell to ring at the end of the day.	+.600			

Table IV-1 (Cont)

	Factor I	Factor II	Factor III	Factor IV
30. I don't mind working hard if I can be assured of getting high marks.		-.486		
31. —				
32. It's more important to make good grades than to actually master and learn a subject.		-.561		

Table IV-2

Two-Way Analysis of Variance
Factor Scores

Factor I
Intrinsic/Negative Motivation

	Sum of Squares	NDF	Variance Est.	F Ratio
School	37.5383	2	18.7691	23.17*
Sex	2.4228	1	2.4228	N.S.
Interaction	-0.0192	2	-0.0096	N.S.
Within	144.9275	179	0.8097	
Total	184.8694	184	---	

*P $<$.0001

Factor Score Cell Means

School	Boys	Girls	Total: Schools
City	-.13	-.11	-.12
Suburban	-.69	-.32	-.50
Private	+.50	+.63	+.57
Total Boys/Girls	-.12	+.11	

Table IV-2 (Cont)

Factor III

Inner-Directed/Other-Directed Motivation

	Sum of Squares	NDF	Variance Est.	F Ratio
School	14.7864	2	7.3932	7.95* $< .01$
Sex	0.2072	1	0.2072	N.S.
Interaction	4.1831	2	2.0916	N.S.
Within	165.6963	179	0.9257	
Total	184.8730	184		

Factor Score Cell Means

School	Boys	Girls	Schools: Total
City	-.45	-.29	-.37
Suburban	+.21	-.17	+.02
Private	+.13	+.46	+.32
Total Boys/Girls	-.04	+.03	

Table IV-2 (Cont)

Factor II

Dependence/Independence in Learning

	Sum of Squares	NDF	Variance Est.	F Ratio
School	33.8563	2	16.9282	20.39* $<.001$
Sex	1.0503	1	1.0503	N.S.
Interaction	1.1619	2	0.5810	N.S.
Within	148.8090	179	0.8313	
Total	184.8776	184		

Factor Score Cell Means

School	Boys	Girls	Total: Schools
City	+.66	+.38	+.52
Suburban	+.15	-.06	+.04
Private	-.60	-.46	-.52
Total Boys/Girls	+.08	-.07	

Table IV-2 (Cont)

Factor IV

Self-Mastery/Personal Pessimism

	Sum of Squares	NDF	Variance Est.	F Ratio
School	1.3212	2	0.6606	N.S.
Sex	0.0848	1	0.0848	N.S.
Interaction	0.0577	2	0.0288	N.S.
Within	183.3857	179	1.0245	
Total	184.8493	184		

Factor Score Cell Means

School	Boys	Girls	Total: Schools
City	+.04	+.11	+.08
Suburban	+.03	+.06	+.04
Private	-.14	-.09	-.11
Total Boys/Girls	-.02	+.02	

APPENDIX A

Code Number: ______________________

Name: ______________________

School: ______________________

Grade: ______________ Sex: ________

Age: Years ____________ Months ________

STUDENT OPINION SURVEY

On the following pages are some opinions that students hold about school. We are interested in getting your views also. Under each item please circle the response that comes closest to how you feel about the statement. Space has been left for you to fill in a reason for your response if you like. It is most important, however, that you circle your views on all the statements; then you can add comments as time permits.

WORK RAPIDLY AND BE SURE TO ANSWER EACH ITEM.

STUDENT OPINION SURVEY

1. Sometimes I get so involved in class discussion that I hate for the bell to ring.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note: ____

____

____

2. A student who follows definite advice will most likely make best use of his time and talents.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note: ____

____

____

3. It's hard to understand how students could get excited in classroom discussion.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note: ____

____

____

4. I find it difficult to study for tests.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note: ____

____

____

5. Planning only makes a person unhappy since your plans hardly ever work out.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:

6. There is nothing more annoying than a question that may have two answers.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:

7. School learning is boring.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:

8. I usually study only when I know there's going to be a test.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:

9. I find many of my subjects quite interesting.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:____

____

____

10. The success you're going to have in school is already in the cards, so you might as well accept it.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:____

____

____

11. A good teacher's job is to keep his students from wandering from the right track.

Strongly Agree	Agree	Tend to Agree	Tend to	Disagree	Strongly Disagree

Reason or note:____

____

____

12. Most of my subjects are very uninteresting.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:____

____

____

13. Often, I do the required reading just before class.

Strongly Agree	**Agree**	**Tend to Agree**	**Tend to Disagree**	**Disagree**	**Strongly Disagree**

Reason or note:____

____

____

14. I often do reading that is not assigned, just because it interests me.

Strongly Agree	**Agree**	**Tend to Agree**	**Tend to Disagree**	**Disagree**	**Strongly Disagree**

Reason or note:____

____

____

15. If a person is willing to work hard, he's almost sure to succeed.

Strongly Agree	**Agree**	**Tend to Agree**	**Tend to Disagree**	**Disagree**	**Strongly Disagree**

Reason or note:____

____

____

16. Students must first master what is already known before they start forming opinions of their own.

Strongly Agree	**Agree**	**Tend to Agree**	**Tend to Disagree**	**Disagree**	**Strongly Disagree**

Reason or note:____

____

____

17. If no grades were assigned in this school, I would do very little work.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:____

____

____

18. I sometimes remain after class to continue discussion with my teacher.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:____

____

____

10. Teachers should ask questions more concerned with facts than with student opinions or interpretations.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:____

____

____

20. I often feel that I just can't learn.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:____

____

____

21. For some reason my classes just don't interest me very much.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:

22. I pay the most attention in class when the teacher is reviewing for a test.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:

23. After school, my friends and I sometimes talk about ideas that were discussed in class.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:

24. A student shouldn't disagree with a teacher's interpretation of a book.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:

25. Students like me just don't have much of a chance to get ahead.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:____

____

____

26. I do extra work only if I receive extra credit for it.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:____

____

____

27. Doing work that interests me is more important than getting good grades.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:____

____

____

28. In learning it's better to follow a "tried-and-true" method than to try and find one of your own.

Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree

Reason or note:____

____

____

29. I can't wait for the bell to ring at the end of the day.

Strongly Agree	**Agree**	**Tend to Agree**	**Tend to Disagree**	**Disagree**	**Strongly Disagree**

Reason or note:

30. I don't mind working hard if I can be assured of getting high marks.

Strongly Agree	**Agree**	**Tend to Agree**	**Tend to Disagree**	**Disagree**	**Strongly Disagree**

Reason or note:

31. I wish I had more time to study on my own.

Strongly Agree	**Agree**	**Tend to Agree**	**Tend to Disagree**	**Disagree**	**Strongly Disagree**

Reason or note:

32. It's more important to make good grades that to actually master and learn a subject.

Strongly Agree	**Agree**	**Tend to Agree**	**Tend to Disagree**	**Disagree**	**Strongly Disagree**

Reason or note:

APPENDIX B

Request to Students

MALE

Circle One

FEMALE

Student,

We are interested in the attitudes of high school students toward school. You can be of great help to us by merely writing out on this sheet as many real opinions and attitudes of your own as you can. No names or identification are required. Reality is important. We are interested in short statements about school; for example, what do you think about the reasons parents, teachers and friends give for your being in school. What are the most important reasons to you, for being in school. What school does or does not do for you. Why you like school or hate it. What you expect to get out of school. Why you must stay in school.

Thank you very much.

APPENDIX C

The School Q-Sort*

In addition to developing the SOS from the open-ended questionnaires, we also used the statements to form a School Q-Sort Instrument. The Q-Sort format in this case allows the pupils to place statements about school in their own order. The student then creates his own distribution of items along the given continuum, Most Important to Least Important. We asked each pupil to place the statements in accord with his own most important reasons for attending school and vice versa. The instruction sheet is included at the end of the Appendix.

We selected thirty-nine items to make up the population of Q-Sort statements. These statements were then placed on a nine point forced normal distribution curve. The content of the items having been derived from the questionnaire were as follows:

Q-Sort Statements

1. School gives me a chance to go out for sports.
2. I come to school to be with my friends.
3. To me, school is a place to get knowledge.
4. I go to school because I want to learn.
5. School helps me to understand people.
6. I think some classes are challenging.
7. I am learning interesting things in school.
8. School gives me something to do.
9. School makes me less dependent upon my parents.

---

*We were particularly indebted to Kenneth Molchen, Ed.D., Cornell University for his work in developing the items and analyzing the results. Since the Q-Sort as methodology and the data analysis procedures are complex issues, we have not included a comprehensive discussion in this report. These issues lend themselves to extensive discussion. These will be presented in a forthcoming paper by Professor Molchen.

10. School is a preparation for my future.
11. Extra-curricular activities are important to me.
12. Education offers me a better job with better pay.
13. School helps me acquire a skill for the future.
14. I want a general knowledge.
15. School helps me think for myself.
16. Sometimes I feel I am being pushed too hard.
17. I think school is what I make of it.
18. My way to get a good job is to finish school.
19. I come to school to prepare for a profession.
20. School gives me a chance to exercise leadership.
21. I think school puts too much emphasis on grades.
22. I expect to get a good education out of school.
23. My parents want me to get an education they never had.
24. Some subjects will help me in a job.
25. I expect school to prepare me for college.
26. My parents want me to get an education for the future.
27. I make my parents proud of me by success in school.
28. I think school is a road to success.
29. School gives me a feeling of belonging.
30. School is just one of those things I have to do.
31. School helps me to make something of myself.
32. I grow socially in school.
33. My parents would not let me drop out of school.
34. School gives me a chance to express myself.
35. My parents want to spare me life's hardships.
36. I would stay in school even if my parents did not push me to.
37. My parents send me to school to get me out of the house.
38. For me, school means an active social life.
39. Some of my teachers are too strict.

RESULTS

For the purposes of this report we plan to present only the two statements selected as most important and least important across all three schools and by sex. This way we will have an over-view of the reasons for school as they are held in common or disparate by either school and/or sex. Also it will provide further data as confirmatory or not to the emerging pattern of differences across the schools themselves. Since the Q-Sort technique involved a forced normal distribution, we will present the statement with the highest average placement (e.g. the mean placement) as indicating the most important reason and the statement with the lowest placement as indicating the reverse.

As Table 3 indicates, particularly in the array of most important reasons for schooling, that the three schools differ. There seems to be much less variation in the least important reasons for school. In all three schools for both boys and girls, item #37 was least important, "My parents send me to school to get me out of the house." There are evidently some views that are indeed common to almost all adolescents! Teenagers apparently don't feel that their parents are pushing them out the door to get them out from under their feet. Or, if they do, then it still is perceived as a relatively unimportant reason for school by the pupils. Among the other reasons placed as unimportant, in the two public schools the boys listed either, "School is something to do," or "School gives me something to do," statements signifying a kind of laissez-faire attitude as if there is nothing else to do so I'll go to school. This was seen as unimportant. The girls in the suburban school also rated, "School gives me a chance for sports..." as unimportant. In the private school, on the other hand, both boys and girls rated, "My parents want me to get an education they never had" as unimportant, certainly reflecting the high educational backgrounds of the parents referred to in an earlier section of the report. On an overall basis it would be difficult to attribute much significance to the array of least important reasons for school. In the first place, there aren't many differences, and since the shared reasons do not appear to imply substantive issues, it appears that a more sophisticated analysis of least important reasons is requisite.

If it appears that such a simple analysis of the Q-Sort does not yield much information concerning the least important reasons, the opposite does not hold for the most important reasons. In the urban school both boys and girls rated school as "job preparation" as most significant. We have indicated throughout this report that the pupils in the urban school tend to see a direct relationship between their present schooling and their vocation. This is true for both sexes, even though most of the boys were enrolled in the general curriculum.

In the suburban school both boys and girls rate as most important, school as preparation "in general" for the future. There is however, a different translation of this statement. The boys connect this directly to college preparation, again a view of schooling that connotes an extrinsic or functional relationship between school and what it will do. The girls, on the other hand, rate as second most important, school as learning, rather than college preparation. It is only in the private school that both boys and girls rate "learning" as most important. Again, this reappears as a common theme through the findings. It is perhaps also of significance that the girls and the boys do differ in the second most important reason, the boys denoting "college" and the girls indicating an "interpersonal sensitivity" as important.

The Q-Sort, as we have used it thus far in the analysis does provide an overview of the students and their reasons for school. The results do tend to confirm the general differences especially on the dimension of most important reasons for school. However, as we indicated earlier these results are only initial findings from the Q-Sort procedure and cannot be considered as systematic or comprehensive indicators of what the Q Technique can yield.

Q-Sort Instruction Sheet

Name:

School:

This instrument is designed to give you an opportunity to describe your perception of SCHOOL and your reasons for attending.

You have been given 39 cards. On each is an item identifying an attitude toward school.

Complete the instrument in the following manner:

(1) Divide the cards into three piles. In one pile put those cards which identify items you consider most important as reasons for your attending school. In a second pile put those cards identifying items you definitely feel are least important for you. In the third pile put those cards which you feel are neutral in importance, or about which you are in doubt.

(2) Further divide the cards into nine piles according to the distribution given below on the basis of a range from most important to least important. In pile No. 9 put the one card which identifies the item which for you is most important as a reason for your attending school. In pile No.8 put the three cards you think are the next most important. In pile No. 7 put the five cards next most important. Proceed according to the pattern below until you have completed the nine piles. You must follow this distribution!

	Most Important					Least Important			
Pile No.	9	8	7	6	5	4	3	2	1
No. Cards in Pile	1	3	5	6	9	6	5	3	1

Each card is numbered, ranging from 1 to 39. After you have completed the nine piles, record the pile number alongside the card number listed at the side of this sheet. For example, if you have put card No. 30 in pile 9, write 9 alongside the number 30 on the side of this sheet. Record all the pile numbers in this manner.

Card	Pile	Card	Pile
1		21	
2		22	
3		23	
4		24	
5		25	
6		26	
7		27	
8		28	
9		29	
10		30	
11		31	
12		32	
13		33	
14		34	
15		35	
16		36	
17		37	
18		38	
19		39	
20			

Table IV-3

Q-Sort Statements

School A (urban)		Most Important Reasons for School		Least Important Reasons for School
Boys (N=29)	#10	School is a preparation for my future. ($\overline{X}$ = 7.7, S.D. = 1.09)	#37	My parents send me to school to get me out of the house. ($\overline{X}$ = 1.6, S.D. = 0.9)
	#12	Education offers me a better job with better pay ($\overline{X}$ = 7.34, S.D. = 1.5)	#30	School is just one of those things I have to do. ($\overline{X}$ = 2.9, S.D. = 1.5)
Girls (N=29)	#10	School is a preparation for my future. ($\overline{X}$ = 7.06, S.D. = 1.6)	#37	My parents send me to school to get me out of the house. ($\overline{X}$ = 2.32, S.D. = 1.6)
	#12	Education offers me a better job with better pay. ($\overline{X}$ = 6.83, S.D. = 1.7)	#30	School is just one of those things I have to do. ($\overline{X}$ = 3.25, S.D. = 1.8)

Table IV-3 (Cont)

Q-Sort Statements

School B (Suburban)	Most Important Reasons for School	Least Important Reasons for School
Boys (N = 30)	#10 School is a preparation for my future. ($\overline{X}$ = 7.1, S.D. = 1.6)	#37 My parents send me to school to get me out of the house. ($\overline{X}$ = 1.8, S.D. = 1.5)
	#25 I expect school to prepare me for college. ($\overline{X}$ = 7.06, S.D. = 1.5)	#8 School gives me something to do. ($\overline{X}$ = 3.7, S.D. = 1.7)
Girls (N=30)	#10 School is a preparation for my future. ($\overline{X}$ = 7.3, S.D. = 1.5)	#37 My parents send me to school to get me out of the house. ($\overline{X}$ = 1.9, S.D. = 1.39)
	#4 I go to school because I want to learn. ($\overline{X}$ = 7.0, S.D. = 1.48)	#1 School gives me a chance to go out for sports. ($\overline{X}$ = 2.9, S.D. = 1.9)

Table IV-3 (Cont)

Q-Sort Statements

School C (Private)	Most Important Reasons for School	Least Important Reasons for School
Boys (N=29)	#4 I go to school because I want to learn. ($\overline{X}$ = 7.17, S.D. = 1.5)	#37 My parents send me to school to get me out of the house. ($\overline{X}$ = 2.10, S.D. = 1.11)
	#25 I expect school to prepare me for college. ($\overline{X}$ = 6.89, S.D. = 1.4)	#23 My parents want me to get an education they never had. ($\overline{X}$ = 3.2, S.D. = 1.37)
Girls (N=38)	#4 I go to school because I want to learn. ($\overline{X}$ = 7.42, S.D. = 1.3)	#37 My parents send me to school to get me out of the house. ($\overline{X}$ = 2.39, S.D. = 1.51)
	#5 School helps me understand people. ($\overline{X}$ = 7.0, S.D. = 1.4)	#23 My parents want me to get an education they never had. ($\overline{X}$ = 2.65, S.D. = 1.30)

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Chapter V

THE SCHOOL APPERCEPTION TEST

Saul M. Yanofsky

INTRODUCTION

To elicit attitudes toward learning and to develop an understanding of the perceptions that pupils manifest toward school, we included in our overall assessment procedure a special set of school scene pictures. The technique was a modification of the Murray Thematic Apperception Test. Instead of using Standard TAT cards, however, we constructed our own set of pictures depicting aspects of a secondary school. This chapter provides a description of the development of the projective instrument and an analysis of the results obtained by administering it to our research sample.

Selection of School Scene Pictures

We selected a final set of six pictures after reviewing some 300 photographs that we had taken in a series of visits to area schools. Various groupings of pictures were pre-tested in schools not in the research sample. We were particularly interested in selecting pictures that were relatively neutral so the latent stimulus demand of any single picture would not become significant. One of the problems with projective instruments has been the need to avoid pictures that would "pull for" a particular response.

Even though the staff had selected pictures on this basis, pre-testing indicated that many scenes we considered neutral were exclusively "social" in the perceptions of pupils. One picture showed a boy and girl sitting at a table in schoolroom, seriously looking at an open schoolbook. Almost none of the pre-test stories, however, contained any reference to an "academic" theme. Similarly, pictures of students interacting in a classroom context almost always were interpreted, in the pre-testing, as evidence of deviant behavior, e.g., passing notes, cheating, whispering. No pupil (of the 106 in the pre-test) viewed classroom student communication as a legitimate learning activity.*

On this basis the pictures selected for the research all portrayed serious student involvement in academic schooling of some kind; there were no scenes of students socializing. In addition, because the learning situation depicted was intended to as general as possible, no picture contained cues specific to any one school subject. The pictures were as follows:

#1 - Depicted a girl sitting at a desk alone, with a piece of paper in front of her.

#2 - Illustrated a boy talking with a teacher in the front of a classroom.

#3 - Showed a girl copying an assignment from an open book. The background included numerous books on shelves.

#4 - Illustrated two boys at school desks, one with pencil and paper out, both looking toward the front of a classroom.

#5 - Depicted a boy sitting with a book open at his desk with a male teacher leaning over his shoulder looking at the book.

#6 - Illustrated a girl sitting on bench with her notebook out and pencil in hand, in a school building.

SCORING PROCEDURES[1]

Most of the thematic scoring systems reported in the literature were designed for clinical or idiographic research purposes. The reader can find summaries of the most popular scoring schemes in works by Schneidman (1951), Syatt (1947), and Murstein (1963, 23-42).

More relevant for the present study are the scoring systems created by McClelland and his co-workers in the field of motivation (McClelland et al., 1953; Atkinson, 1958). These latter schemes are quantitative and intended for nomothetic research use. Whereas each of the McClelland scoring procedures was designed to investigate a particular motive (e.g., achievement, power, affiliation), the multi-faceted nature of the present research dictated a scoring system that was more comprehensive in its coverage.

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*This is perhaps a most telling commentary of their perceptions of pupil to pupil interaction in a classroom.

[1] A more detailed account of the development of this instrument and the procedures for administration is provided by Yanofsky (1968): A Projective Technique for the Study of Adolescent Attitudes Toward School. Harvard Graduate School of Education, Thesis.

A variety of scoring procedures was tried in the early stages of work with the methodology. These ranged from a highly specific, thematic (and outcome) analysis to a series of scales for rating affect in the stories. Whereas the latter technique sacrificed most of the idiosyncratic story content, the former procedure was extremely cumbersome and, due to the multitude of categories, was difficult to analyze statistically. The system described below was revised several times, and each revision reduced the number of potential scoring alternatives. From a desire to record as sensitively as possible the individualistic themes and plot outcomes, the research staff moved toward a few basic categories, admittedly losing in the process a large portion of the protocol content. Practical rather than theoretical reasons governed this evolution: at this stage of the test's development, where the very basic question of the technique's validity had yet to be answered, it was considered premature to undertake the additional problems associated with a multi-dimensional and highly-specific scoring system. The validity of the test, it was felt, could best be explored in terms of a few important categories; greater sensitivity in the scoring could await further refinement of the technique.

The scoring system used in the present research consisted of six major areas, five of which were dichotomized in their scoring alternatives. The system was not intended to be exhaustive; these particular categories were selected by the staff because they represented aspects of school and student behavior relevant for the present research.

The first four categories were essentially thematic, intended to record the frequency with which certain behaviors, aspirations and outcomes were mentioned in the stories. If present in a story, a theme was scored in the appropriate category, with no limit on the number of categories that could be scored per story. Any given category could be scored only once for each story, however, no matter how many examples of a particular theme were contained in the response.

The last two categories recorded affect or the respondent's perceptions of particular objects: (a) the school situation depicted, and (b) teachers. In scoring these categories, the scorers had to find specific evidence in the stories which would indicate particular feeling toward the respective object; neutral or ambiguous descriptions would not be scored under this system. Like the preceding categories, any given scoring alternative could be scored only once for each story.[2]

The Scoring Categories

1. Social, non-academic theme. Coleman (1961) and others have discussed the extent to which adolescents view school as a social institution, and this category was intended to provide an indication of the salience of peer-centered, social phenomena for the subjects. "Social" was meant to include peer relationships and references which were not primarily academic in nature (e.g., looking at a girlfriend during class, thinking about playing ball after school, waiting for a friend, talking about the weekend dance, passing notes to a classmate).

2. Extrinsic criteria of achievement or competency. This category was intended to tap the saliency of extrinsic performance criteria (e.g., tests,

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[2] As indicated above, the general nature of the categories and the rough dichotomization of the scoring alternatives necessarily obscure distinctions and important variations among the stories. The possible effects of such undifferentiated categories upon the assessment of the instrument's validity are discussed later.

marks, report cards) for the high school students. To what extent did the respondents construe school situations in terms of marks and grades? The assumption was that the students who tended to emphasize marks were those who viewed school in instrumental terms; that is, as a necessary step to college or as a means to obtain a better job. The general category was dichotomized to differentiate between themes of success/improvement and themes of failure/falling grades.

3. Intrinsic criteria of achievement or competency. The intent of this category was to record those themes involving school performance (e.g., "He knew his French very well." "Judy can't seem to understand algebra." "Bill finally figured out the problem.") which were independent of objective, external indices of success or failure. The assumption in creating this category was that it would differentiate between respondents who viewed school generally as a means to some predefined end and those who construed their school experience in more personal and intrinsically-meaningful terms. Like the preceding section, this category was dichotomized to distinguish themes of personal success and satisfaction from those of failure and disappointment.

4. Task orientation. This category was an attempt to determine how the subjects construed the student behavior presented in the pictures. The major focus was on the respondent's description of the central figure's actions and feelings: Was the student in the picture conscientious and complying with the school task? Or was he neglectful of his work, bored or not serious about what was happening? The category was descriptive rather than evaluative and dealt with behavior rather than with affect. The scoring alternatives presented the positive and negative poles of the dimension:

> 4a. Takes work seriously, tries. This category included a host of behaviors, ranging from starting a homework assignment on time to paying close attention in class. The key is trying: working hard, completing assignments, and participating in class.

4b. Not serious about work, neglects or delays. The range of behavior included under this category was also quite broad. Being bored in class and not paying attention were perhaps the most common examples. Others included being late or hurried on a homework assignment, not studying for a test, and generally not caring about one's performance.

5. Reaction to school situation. This category was designed to tap the affect or evaluations associated with the student's school experience. The dichotomous scoring procedure was especially inadequate for this area, but it was hoped that it would provide at least some indication of whether the student "likes" or "values" what he is doing in school. The scorers were instructed not to score under this category unless there was explicit evidence (specific words or phrases) of affect in the stories; general tone or inferences would not be sufficient. In a sense this category complemented the one above (Task orientation); it was possible for a student to be conscientious and work hard but yet not like what he was doing. The scoring of student reaction toward the school situation depicted was in terms of the rough dichotomy: (a) favorable and (b) unfavorable.

6. Characterization of teachers. The behavior of the teachers in the pictures could have been construed in a variety of ways. Several researchers (e.g., Hart, 1934; Jersild, 1940; Witty, 1947) have reported that students regard interpersonal factors, rather than cognitive ability or teaching skills, as the most important attribute of their teachers. Consequently this category was intended to record the manner and attitude of the teacher in his interaction with students. The dichotomous scoring alternatives, Dominative and Integrative, were taken from the vast literature on teacher behavior (e.g., Anderson & Brewer, 1945; 1946; Cogan, 1954) and were intended to represent two discrete clusters of teacher attitudes and actions:

6a. Dominative. This label referred in the study to teachers who used commands, threats, blame or shame on their students. The category was expanded to include teachers who were rigid and insensitive toward students and those who made no effort to help a student who had requested assistance.

> 6b. Integrative. This category was the converse of the one above. It referred to teachers who were helpful, friendly, cooperative and sensitive to their students. The integrative teacher was supportive and encouraging rather than caustic and punishing.

As in the preceding category, the judges were instructed not to score for this dimension unless there were specific cues in the story that would place the teacher into one of the two scoring categories; neutral actions and statements by the teacher were not scored by this system.

7. Unscorable responses. This last category was needed for responses which could not be scored in any of the other categories. The category was composed of (a) inadequate responses and (b) spurious responses. The former included pages left blank or stories so meager that there was nothing substantive to score. "Spurious" responses were defined as stories which were not about school or those which for a variety of reasons (e.g., stories referring to the experimental situation, stories which were bizarre or obviously "put on") could not be scored and analyzed together with the other responses.

Since the categories had been selected because they represented areas of student attitudes and perception particularly relevant to the present study, the staff also agreed to examine both the number of "unscorable" stories and their content. Obviously if a large number of stories produced by the pupils turned up in the unscorable categories when the stories were independently judged, the scoring system would have to be revised. This is, of course, a necessary check on any system for scoring the content of projective stories.

Scoring Reliabilities

Using the scoring system described above, three judges coded the stories independently. Only a short period was allowed for training and only a few protocols were available for practice. Nevertheless, the agreement between judges was relatively high.

FIGURE 1

Example of Final Scoring Sheet

	Picture Number					
	1	2	3	4	5	6
1. Social, non-academic theme						
2. Extrinsic criteria of achievement or competency						
2a. Does well, improves						
2b. Does poorly, goes down						
3. Intrinsic criteria of achievement or competency						
3a. Demonstrates competence, understands						
3b. Demonstrates incompetence, does not understand						
4. Task orientation						
4a. Takes work seriously, tries						
4b. Not serious about work, neglects or delays						
5. Reaction to school situation						
5a. Favorable						
5b. Unfavorable						
6. Characterization of teachers						
6a. Dominative						
6b. Integrative						
7. Unscorable response						
7a. Inadequate response						
7b. Spurious response						

A quantitative measure of inter-judge reliability was derived by computing the percentage agreement between pairs of judges on the presence of scores. Despite the criticism this method has received from Jensen (1959a; 1959b) and Murstein (1963), the research staff felt that it was the most appropriate way to measure scoring reliability for the present study.[3] Given a series of categories, each one of which either received a tally or remained blank, the most logical (albeit simple) test of scoring reliability was the percentage of times that two judges agreed that a particular theme was present in a story. Since all the protocols were scored by the three judges, three measures of agreement between pairs could be reported. The percent agreement between each pair was computed for each category by dividing the number of instances in which both judges agreed on a score by the average of the total number of tallies by each judge on a category. Mathematically, the computing formula was

$$100 \text{ X } \frac{\begin{array}{l}\text{number of agreements}\\ \text{between scorers 1 and}\\ \text{2 for a category}\end{array}}{\begin{array}{c}\text{total number of}\\ \text{tallies for the}\\ \text{category by scorer 1}\end{array} + \begin{array}{l}\text{total number of tallies}\\ \text{for the category by}\\ \text{scorer 2}\end{array}}$$

The percentage agreements for each of the categories are presented in Table 1. In general, scorer reliability was high, especially when one considers the unproven nature of the pictures and scoring system, the judges' inexperience, and the limited number of practice sessions.[4] The lowest percentages were obtained in the intrinsic criteria categories which, almost by definition precluded explicit, easily-definable scoring cues. The second lowest reliabilities were found in the affect categories, especially with regard to positive reactions toward school. Because it was so difficult to find explicit statements of positive affect in the stories, it is quite possible that the judges were overanxious in their scoring of this category, departing on occasion from the conventions in the scoring manual.[5]

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[3] Interestingly enough, neither Jensen nor Murstein provided examples of percentage agreement used only for the presence of scores.

[4] Veroff and his associates (1960), using a scoring system that had been developed and highly refined by prior researchers and an extensive training period for the judges, reported scorer reliabilities that were lower than the ones obtained in the present research. Yet they concluded that "...considering the anticipated loss in coding reliability attributable to the use of several new pictures here for the first time, we were encouraged by these results" (1960, 10).

The staff was encouraged by the scoring agreements. The high percentages demonstrate that projective protocols can be coded reliably by inexperienced judges with only a minimum amount of training. Furthermore the results show that it is possible for researchers to create their own scoring systems, appropriate for the particular problem they are investigating, and still have confidence that the responses can be coded reliably. Finally the results should encourage researchers to be bolder and more imaginative in their use of this methodology for, even under the rather primitive conditions of the present research project, it has been demonstrated that the technique can be administered and scored in a reliable and systematic manner.

Unscorable Stories

A further consideration on the question of reliability was the concern over the critical number of unscorable stories, e.g., stories that the judges could

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[5] It is interesting to note that in almost every category the agreement between Scorer A (the writer) and Scorer B (the other male judge) was higher than the other two estimates of agreement. The overall percentage of agreement between Scorer A and Scorer B was almost ninety per cent, quite remarkable given the limitations of the scoring procedures. In the coding Scorer C (the female judge) tended to read more into the stories, frequently making inferences regarding affect and meaning that neither of the male scorers believed were warranted. It would have been desirable to enlist an additional female judge to see if a sex factor seemed to be operating in the scoring, but this was simply beyond the scope of the present project.

TABLE V - 1

PERCENTAGE AGREEMENT ON THE SCORING CATEGORIES BETWEEN PAIRS OF JUDGES

Category	Percentage of inter-judge agreement		
	Scorer A and Scorer B	Scorer A and Scorer C	Scorer B and Scorer C
1. Social, non-academic theme	92.4	89.8	89.3
2. Extrinsic criteria: 2a. Does well, improves	96.3	85.4	83.7
2b. Does poorly, goes down	91.0	89.0	84.2
3. Intrinsic criteria: 3a. Demonstrates competence	84.0	73.9	71.7
3b. Demonstrates incompetence	78.8	65.7	65.7
4. Task orientation: 4a. Takes work seriously, tries	91.7	91.1	87.1
4b. Not serious about work	89.9	90.7	84.7
5. Reaction to school situation: 5a. Favorable	80.4	79.7	70.9
5b. Unfavorable	90.5	81.7	78.6
6. Characterization of teachers: 6a. Dominative	83.1	75.3	73.3
6b. Integrative	92.8	86.6	84.7
OVERALL	89.7	85.5	82.1

not place in one of the prescribed categories. Table V-2 presents the number of stories eliminated either because of inadequate content or stories that were spurious/non-school-related responses.

As one can see, the private school subjects had the greatest number of unscorable stories, almost all of which were spurious or non-school-related. The suburban respondents had about one-half as many unscorable stories as the private school students, but many of these were incomplete responses or blank pages. At the urban school the subjects generally took the task seriously and almost all of their responses could be scored.

Using the standard employed by Veroff and his associates (1960), protocols were eliminated from the statistical analysis if more than half of the stories were not scored. Table V-3 shows the number of protocols eliminated from each of the subgroups within the sample. Twenty per cent of the private school sample was eliminated because of unscorable responses, compared with about ten per cent of the suburban subjects. None of the urban respondents had to be eliminated from the statistical analysis. Thus for the data analysis the original sample of 178 has been reduced to 160: the number from the urban school remained intact (N=61), the suburban sample was reduced by six (N=52), and the private school group lost twelve subjects (N=47).[6]

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[6] It is interesting to note that, unlike most other projective research (e.g., Veroff et al., 1960), the eliminated protocols came mainly from the most intelligent and verbally-productive segments of the sample.

Although there is no way to document reasons for this atypical result, the staff noted, in later discussions with the private school pupils, that the pupils were intensely individualistic and independent. Some had written freely on the margins in the other instruments. This same sense of independence and imagination may have been the motivation to produce stories to pictures depicting school scenes that were highly individualistic and not connected to school in the usual sense.

TABLE V- 2

Number of Unscorable Stories

	Unscorable stories by school and by sex					
	Urban		Suburban		Private	
Reason for not scoring	Boys	Girls	Boys	Girls	Boys	Girls
Spurious or non-school-related story	8	3	21	3	48	36
Incomplete or no response	0	1	17	5	1	4
TOTAL	8	4	38	8	49	40

TABLE V-3

Protocols Eliminated from Statistical Analysis

	Eliminated protocols by school and by sex					
	Urban		Suburban		Private	
Number of unscorable stories in eliminated protocols	Boys	Girls	Boys	Girls	Boys	Girls
Four	0	0	2	1	0	2
Five	0	0	0	0	0	0
Six	0	0	3	0	7	3
TOTAL	0	0	5	1	7	5

Effect of productivity on category scores

Several studies (e.g., Child, Storm & Veroff, 1958; Veroff et al., 1960; Walker & Atkinson, 1958) have reported significant correlations between word count in the stories and various motivation scores. Because the sample in the present research included students of varying intelligence and verbal ability, it was necessary to consider the possibility of controlling for word count.

Table V-4 shows the mean word count per protocol for each of the sub-groups. As one can see, the urban sample had about 10% fewer words per protocol than the private school students, with the suburban group about midway between the two. Overall, the boys had about 10% fewer words per protocol than the girls.

The Pearson product-moment correlations between word count and each of the scoring categories are presented in Table V-5. Generally the correlations are much lower than expected. For seven of the eleven categories there is no statistically-significant relationship between the scores and protocol word count. Two categories (Task neglects and Teacher integrative) have relationships significant at the .05 level, and for Social and Reaction unfavorable the correlations are significant at the .01 level.

Since the relationship between word count and score was significant in less than half the categories, it was decided not to use any overall statistical correction for protocol length. Because much of the data analysis was to deal with each category separately, it was felt that allowance for the effect of word count could be made in those specific cases where it seemed relevant.[7]

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[7] In Veroff's study (Veroff et al., 1960), all of the correlations between word count and scoring categories were significant at the .0001 level and correction was necessary. In order not to obscure real relationships between a category score and protocol length (e.g., achievement motive), however, the correction was based on an average of all the correlations. In the present case, the average of all eleven correlations was .114, which is not statistically significant.

TABLE V - 4

Mean Number of Words per Protocol

	SCHOOL			
Sex	Urban	Suburban	Private	$\bar{X}$
Boys	387	395	437	406
Girls	426	481	475	461
$\bar{X}$	407	438	456	

Distribution of Scores

Inspection of the raw scores for each of the eleven categories, indicated that the scores were extremely skewed in all the categories except Task tries and Task neglects. Only on these latter two categories did the distribution approach normality.

For the other nine categories the extent of the skewness was so pronounced that not even a transformation of the scores would have allowed them to approach normality. For each of these categories, over two-thirds of the subjects were in the first two, of the possible seven, cells. Thus the data from the picture-story test could not be treated by traditional parametric techniques. The assumption of normality, even when stretched, simply could not be met.

Given this situation two alternatives for treating the data were available. One involved factor analyzing the category scores to obtain a set of factor scores for each of the subjects. If these factor scores approximated a normal distribution for each of the relevant factors, they then could be treated by parametric statistical techniques, such as analysis of variance. The second procedure was designed to analyze each category separately, using the Chi-square statistic, a non-parametric technique. Although the two procedures represent quite different ways of treating the data, neither completely resolved the difficult statistical problems presented by the skewed distributions; the Chi-square technique was too insensitive to scoring variations, and the analysis of variance of factor scores precluded examination of individual categories. Nevertheless, with appropriate caution and qualifications in the interpretation of the results, these techniques can indicate general trends in the data. The results from the two analyses are presented below, together with brief descriptions of the assumptions and limitations of the respective procedures.

TABLE V - 5

Correlation between Word Count and Category Scores

(N=160)

Category	Pearsonian
Social	.267**
Extrinsic well	.112
Extrinsic poor	.090
Intrinsic well	.088
Intrinsic poor	.067
Task tries	- .059
Task neglects	.177*
Reaction favorable	.134
Reaction unfavorable	.226**
Teachers dominative	- .018
Teachers integrative	.174

*significant at .05 level

** significant at .01 level

Factor Analysis of the Data

Factor analysis of the category scores was undertaken for two reasons: first, to identify common dimensions among the eleven categories; and second, to derive from the relevant dimensions scores for each student that could be treated by parametric statistical techniques. Since factor-analytic procedures are based on measures of relationships among variables, one must first discuss the kind of correlations that can most legitimately be used with the present data.

Table V-6 shows the matrix of Pearson product-moment correlations among the eleven scoring categories. Computation of these coefficients traditionally has assumed normal distribution of the scores for each variable, an assumption which is not met in the present case. However, some recent discussions of this issue (e.g., Nefzger & Drasgow, 1957; Furfey, 1958; Milholland, 1958; Binder, 1959; Carroll, 1961) have suggested that Pearsonian correlations need not assume linear relationships among the variables.

Several theorists addressing this problem (e.g., Binder, 1959; Furfey, 1958; Milholland, 1958) have suggested that product-moment correlations could be computed for non-normal data, but that the results would be conservative estimates of the relationships among the variables. Hays (1963) argues that linear regression analysis can be used legitimately with skewed data for descriptive purposes: "In so doing, we describe the data _as though_ a linear line were to be used for prediction, and this is a perfectly adequate way to talk about the tendency for _these_ numerical scores to associate or 'go together' in a linear way _in these_ data" (Hays, 1963, p. 510). Hays suggests that the confusion arises when one attempts to go beyond his data to make inferences about the population.

Carroll (1961), discussing several issues related to the use of Pearsonian correlations with non-normal data, suggested using tetrachoric correlations in cases where the skewness of the data resulted in inaccurate estimates of relationships. Although tetrachoric correlations are used primarily with dichotomous

TABLE V - 6

Matrix of Pearson
Product-moment Correlations

(N=160)

		Variable										
		1	2	3	4	5	6	7	8	9	10	11
1.	Social	1.00	.02	.11	-$\underline{.26}$	.04	-$\underline{.39}$	.19	-.12	.20	.08	.10
2.	Extrinsic well		1.00	-.07	.16	-.10	$\underline{.33}$	-.06	.06	-$\underline{.24}$	-.06	.12
3.	Extrinsic poor			1.00	-.17	.11	-.19	$\underline{.30}$	-.16	.18	.17	-.01
4.	Intrinsic well				1.00	-.14	-$\underline{.51}$	-$\underline{.31}$	$\underline{.33}$	-$\underline{.26}$	-$\underline{.21}$	-$\underline{.23}$
5.	Intrinsic poor					1.00	.06	.05	-.11	.10	-.12	.05
6.	Task tries						1.00	-$\underline{.36}$	$\underline{.31}$	-$\underline{.45}$	-.19	.14
7.	Task neglects							1.00	-$\underline{.26}$	$\underline{.28}$	$\underline{.21}$	-.05
8.	Reaction favorable								1.00	-.16	-.10	-.00
9.	Reaction unfavorable									1.00	.18	-.01
10.	Teacher dominative										1.00	-$\underline{.32}$
11.	Teacher integrative											1.00

Underlined co-efficients are significant at the .01 level.

variables, the procedure has been used in cases where the data were highly skewed. Carroll (1961) stated that the advantage of tetrachoric correlations was that they "...can be used in the absence of any information, or even any assumptions, about the scaling of manifest data, and can be used to adjust for the effects of scaling error" (Carroll, 1961, p. 362). McNemar (1962), however, discussed some serious limitations of tetrachoric correlations, the most important of which was the large amount of available data that is neglected in the dichotomization of the variables.

The crucial question to be examined in the present case was whether the Pearsonian correlations were spuriously affected by the skewness of the data. To test this possibility, tetrachoric coefficients were computed for the eleven variables with the estimated medians as split-points (Jones, 1964, p. 21). The tetrachoric matrix is presented in Table V-7.

Comparisons of the tetrachoric and Pearsonian correlations confirm the predicted trends. The coefficients generally are similar, with the tetrachorics tending to have slightly higher absolute values. Thirty-six of the fifty-five correlations increased in absolute value using the tetrachoric analysis (average increase = .100), and the other nineteen tetrachoric coefficients were lower than their Pearsonian counterparts (average decrease = .050). Thus it would appear that the Pearsonian coefficients were not spuriously affected by the skewness of the data.

Using the Pearsonian correlation matrix as the measures of relationships among the variables, a principal components analysis was computed using the appropriate program in the Data-text system (Data-text manual, 1967). The advantages of principal components analysis have been discussed by Kaiser (1960), Harman (1960), Cooley and Lohnes (1962) and Jones (1964), and no attempt will be made in this paper to repeat these analyses.

TABLE V- 7

Matrix of Tetrachoric Correlations*

(N=160)

	Variable										
	1	2	3	4	5	6	7	8	9	10	11
1. Social	1.00	-.01	.30	-.19	.03	-.34	.41	-.17	.29	.14	.08
2. Extrinsic well		1.00	-.12	.06	.11	.41	-.22	.06	-.19	.01	.06
3. Extrinsic poor			1.00	-.23	-.01	.24	.27	-.25	.26	.20	-.03
4. Intrinsic well				1.00	-.18	.59	-.32	.56	-.35	-.20	.41
5. Intrinsic poor					1.00	-.05	.07	-.08	.09	-.07	.01
6. Task tries						1.00	-.56	.37	-.60	-.21	.22
7. Task neglects							1.00	-.19	.56	.31	-.17
8. Reaction favorable								1.00	-.23	-.01	.01
9. Reaction unfavorable									1.00	.14	-.09
10. Teacher dominative										1.00	-.40
11. Teacher integrative											1.00

*50/50 splits at the median (see JOnes, 1964, p. 21).

Following the recommendations of Kaiser (1960) and Cooley and Lohnes (1962), ones were placed in the diagonals of the correlation matrix and only those factors with latent roots greater than one were retained for analysis. Table V-8 presents the results of the principle components analysis. The solution produced five factors which accounted for 66% of the total variance.

Factor I appears to be a general dimension involving positive-negative orientation toward learning and Factor II seems to emphasize perceptions of teachers; it is difficult, however, to interpret the remaining three factors. In an attempt to make all five factors more interpretable, the axes were rotated. While several rotational procedures were available (see Harman, 1960; Cooley & Lohnes, 1962; Jones, 1964), an orthogonal solution was selected because of the intent to use factor scores in subsequent analyses. It was felt that the independence of the resulting rotated factors would provide sets of factor scores that would be most appropriate for the individual analysis of variance procedures that would be used. The Varimax method (Kaiser, 1958) was selected because it maximized the variance on each of the columns (factors).

Table V-9 presents the results of the Varimax rotation. While Factor II retained its emphasis on teacher perceptions, the other four factors remained difficult to interpret. Rather than attempting to provide meaning to factor patterns which are so ambiguous, the staff decided to limit the analysis to the first two dimensions of the principal components solution. Harman (1960) and Jones (1964) provide justification for this procedure, claiming that a smaller number of factors often can result in a more meaningful rotation than a larger number. When one examines the latent roots of the five original factors (Table V-8). It is clear that after Factor II, the roots begin to level off at around 1.00. The results of a second Varimax rotation, using only these first two factors, are presented in Table V-10.

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TABLE V - 8

Principal Components Analysis of Eleven Scoring Categories*

(N=160)

Variable	Factors I	II	III	IV	V	Communality
Social	-.45	.33	.34	-.49	-.11	.68
Extrinsic well	.36	.10	.72	.13	.29	.76
Extrinsic poor	-.43	.09	.22	.54	.46	.74
Intrinsic well	.71	.06	.04	.01	.41	.67
Intrinsic poor	-.18	.44	-.45	-.46	-.22	.69
Task tries	.80	-.05	.11	.30	.03	.74
Task neglects	-.61	.06	.31	.23	.16	.54
Reaction favorable	.50	-.19	-.11	-.27	.42	.54
Reaction unfavorable	-.60	.11	-.16	-.20	.38	.58
Teacher dominative	-.41	-.61	.27	.07	.12	.63
Teacher integrative	.23	.76	.19	-.12	.26	.75
Latent root	2.88	1.34	1.14	1.03	.95	7.34
Percent of variance	26.18	12.21	10.35	9.35	8.64	
Cumulative per cent of variance	26.18	38.39	48.74	58.09	66.73	

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*Loadings beyond ± .499 are underlined.

TABLE V-9

Rotated Five-Factor Pattern of
Eleven Scoring Categories*
(N=160)

	Factors					
Variable	I	II	III	IV	V	Communality
Social	-.80	.19	.03	.05	.10	.68
Extrinsic well	-.03	.12	.86	.04	.11	.78
Extrinsic poor	.06	.02	-.08	.85	-.11	.74
Intrinsic well	.57	.41	.11	-.10	.40	.67
Intrinsic poor	.10	.19	-.18	.06	-.78	.69
Task tries	.68	.19	.44	-.16	.13	.74
Task neglects	-.34	-.12	-.03	.63	-.10	.54
Reaction favorable	.39	.16	-.16	-.21	.55	.54
Reaction unfavorable	-.38	.04	-.57	.32	.05	.58
Teacher dominative	-.13	-.64	-.02	.37	.27	.63
Teacher integrative	-.09	.85	.10	.09	.05	.75
Latent roots	1.87	1.47	1.35	1.45	1.20	7.34
Per cent of variance	16.99	13.33	12.26	13.21	10.94	
Cumulative per cent of variance	16.99	30.32	42.58	55.79	66.73	

---

*Orthogonal varimax rotation. Loadings beyond ± .499 are underlined.

TABLE V - 10

Rotated Two-Factor Pattern of Eleven Scoring Categories*

	Factors		
Variables	**I**	**II**	**Communality**
Social	-.51	.23	.31
Extrinsic well	.33	.17	.20
Extrinsic poor	-.44	.01	.19
Intrinsic well	.68	.20	.50
Intrinsic poor	-.27	.40	.23
Task tries	.79	.12	.64
Task neglects	-.61	.07	.37
Reaction favorable	.53	-.08	.28
Reaction unfavorable	-.61	-.01	.38
Teacher dominative	-.28	-.69	.55
Teacher integrative	.07	.80	.64
Latent root	2.82	1.41	4.23
Per cent of variance	25.60	12.80	
Cumulative per cent of variance	25.60	38.40	

---

*Orthogonal varimax rotation (mcx = 2). Loadings beyond ± .499 are underlined.

The two factors derived from this analysis are: (1) a general factor appearing to involve positive to negative orientation toward the intrinsic value of school; and (b) a specific factor mainly isolating perceptions of teachers. These two factors account for only 38% of the common variance, and they explain more than 50% of the respective category variance for only four of the eleven variables. However, the loadings of certain variables on each of the factors are sufficiently high (e.g., Task tries, Reaction favorable, Task neglects on Factor I; Teacher dominative, Teacher integrative on Factor II), and the interpretation of each reasonably clear, to warrant undertaking an analysis of possible group differences on the respective factor scores.

The variables with the highest factor loadings on Factor I are Task tries (.79), Intrinsic well (.68), Reaction unfavorable (-.61), and Task neglects (-.61). Reaction favorable (.53) and Social (-.51) also have loadings greater than .50 on this factor. Looking primarily at these variables, one can interpret this factor as indicating a positive orientation toward learning at one pole (positive loadings on Task tries, Intrinsic well, Reaction favorable), and a negative orientation toward learning at the other (negative loadings on Social, Task neglects, Reaction unfavorable). Based on other data collected from the sample, we should expect school differences in the scores on this factor, with the private school students located highest on the positive pole, the urban students about in the middle, and the suburban students with the highest negative scores.

Figure 2 presents the distribution of factor scores for Factor I. From the graph, it appears that the distribution is close enough to normality to justify the use of parametric analysis of variance procedures to test for group differences. A 3 x 2 x 2 analysis of variance was computed, with school (urban, suburban, private), sex (male, female), and achievement (median-split into high, low) as the independent variables.[8] The results are presented in Table II.

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[8] The ANOVA program, part of the MSA system (Jones, 1964), was used because of its ability to compute analysis of variance for unequal cell sizes.

As the table indicates, there are no significant effects. While coming the closest to statistical significance,[9] school differences fail to emerge as dramatically as expected. In fact, when one examines the cell means, the urban school is higher than the private school on the positive pole.

The only two variables with high loadings on Factor II are Teacher dominative (-.69) and Teacher integrative (.80). The next highest loading is .40 (Intrinsic poor), and the rest are considerably lower. Thus Factor II can be interpreted primarily as a "perception of teacher" dimension, with positive scores indicating a supportive or integrative interpretation of teacher behavior and negative scores indicating dominative perceptions of teachers. Although the other instruments provide no data bearing on this topic that could be used in the formulation of hypotheses, from the descriptions of the school, one would intuitively expect students from the private and suburban schools to have higher positive scores than students from the urban institution.

The distribution of factor scores for Factor II is presented in Figure 3. Again we may regard the distribution as close enough to normality to justify using an analysis of variance procedure. The 3 x 2 x 2 design described above was repeated with factor scores from Factor II as the dependent variables. The results are shown in Table V-12.

The table shows no significant results for either the main effect or for any of the interactions. While the school differences appear to be in the expected direction, they are not large enough to be important. The factor scores on Factor II do not seem to differentiate any of the groups.

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[9] The critical F-value at the .05 level with 2 and 148 degrees of freedom is 3.05.

TABLE V - 11

Three-Way Analysis of VAriance for Factor Scores of Factor I

School	2	5.547	2.773	2.781	N.S
Sex	1	0.720	0.720	0.722	N.S.
Achievement	1	2.504	2.504	2.511	N.S.
Sex x School	2	1.134	0.567	0.569	N.S.
Achievement x School	2	1.438	0.719	0.721	N.S.
Achievement x Sex	1	0.217	0.217	0.218	N.S.
Achievement x Sex x School	2	0.857	0.428	0.430	N.S.
Within	148	147.584	0.997		

Cell Means

	Urban		Suburban		Private	
Achievement	H	L	H	L	H	L
Sex						
B	.22	-.12	-.36	-.20	.10	-.15
G	.44	.32	-.06	-.23	.25	-.44
$\overline{X}$	.33	.10	-.21	-.22	.18	-.30

School

Urban = .22

Suburban = -.22

Private = .06

Sex

B = -.09

G = .04

Achievement

H = .10

L = -.14

TABLE V- 12

Three-Way Analysis of Variance for Factor Scores of Factor II

School	2	1.220	0.610	0.591	N.S.
Sex	1	0.034	0.034	0.032	N.S.
Achievement	1	0.070	0.070	0.068	N.S
Sex x School	2	4.155	2.077	2.010	N.S.
Achievement x School	2	0.924	0.462	0.447	N.S.
Achievement x Sex	1	0.024	0.024	0.024	N.S.
Achievement x Sex x School	2	0.646	0.323	0.313	N.S.
Within	148	152.926	1.033		

Cell Means

	Urban		Suburban		Private	
Achievement Level	H	L	H	L	H	L
Sex						
B	-.06	.22	.02	-.27	.18	-.10
G	-.26	-.23	.28	.35	.00	-.16
	-.16	-.05	.15	.04	.09	-.13

School	Sex	Achievement
Urban =-.11	G = .00	H = + .03
Suburban = .10	B = .00	L = -.05
Private =-.02		

Chi-Square Analysis

The technique used to examine the results of each category separately was the Chi-square statistic described by Siegel (1956), McNemar (1962), Hays (1963), Cochran (1954) and many others. Because this nonparametric procedure makes no assumptions about the distribution of the data, it could be used with the peculiar distribution of scores from the picture-story test. In the present research the technique was used to test the significance of the differences in category scores among the sub-groups. Three independent variables were examined in this analysis: (a) School (urban, suburban, private); (b) Sex (boys, girls); and (c) Achievement level (high, middle, low).

It should be pointed out that the Chi-square statistic generally is used to examine the independence of qualitative attributes. As such it is not sensitive to effects of order when there are more than two categories along a marginal. Thus the significance of a Chi-square test means only that the distribution of scores in each cell are different from what one might expect by chance, thereby indicating that the variables are not independent. The direction of the differences and an interpretation of their meaning (if any) must be determined by inspection of the cell frequencies.

The procedure admittedly is weak and not very sensitive to the kind of data provided by the picture-story test. As Siegel stated, "There is usually no clear alternative to the Chi-square test when it is used, and thus the exact power of the test cannot be computed" (1956, p. 179). Because in the present research there was no alternative to the Chi-square technique for examining the scores on each category, the following results should be regarded conservatively and with qualification.

Social, non-academic theme

Although the Chi-square statistic indicated a significant sex difference (p=.024) for this category, it is difficult to interpret the results. While 50% more girls than boys wrote two or more stories with social themes, almost twice as many girls as boys had no social themes in their stories; about one-half of the boys had only one story which was scored in this category. An examination of the distribution of scores by sex and by school indicated that the urban girls accounted for more than half of the frequencies in the bottom cell. Only one-fourth of the girls at the suburban and private schools failed to mention social themes.[10]

While there was not a statistically-significant school difference in this category, students at the suburban school appear more concerned with social thoughts and behavior than those at the other schools. Over one-half of these respondents wrote two or more stories which contained social themes.

Since this category had shown a significant relationship between score and word count (Referring to Table V-4), we noted that girls generally had more words per protocol than boys, and that the suburban and private school students wrote more than the urban students. Taking these productivity differentials into account tends to negate the slight trends in the data, leading to the conclusion that there were no important differences in the Social category.

Extrinsic criteria of performance

Extrinsic well. There were no significant differences in this category for any of the independent variables. While it might be predicted that high achievers would have more success themes than low achievers, the results do not confirm this; in fact, low achievers have slightly higher frequencies than their counterparts in the upper achievement group.

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[10] See Yanofsky (1968) for the Tables containing the actual frequency distributions.

While the distributions by sex were almost identical, the school comparisons did reveal one interesting point: the low frequency in this category of the private school students. Almost one-half of these respondents failed to mention any themes involving school success as defined by extrinsic criteria, and less than 15% had more than one such story.

Extrinsic poor. This category scored stories which contained themes of failure or poor performance as defined by test scores, report card marks, or some other objective index of achievement. There were no significant differences for any of the three major variables. Again one should take notice of the similarity in the scoring distributions for achievement levels; if the stories had reflected in a direct manner the respondent's own experiences and feelings, the low achievers should have had higher scores in this category than the upper achievement group. Such was not the case.

Intrinsic criteria of performance

Intrinsic well. In this category school differences were significant as measured by the Chi-square Test ($p < .07$). While the distribution for the urban and private school students was relatively similar - with about one-fourth of each group in the top cell - the suburban students are over-represented in the bottom cell. It would seem as if intrinsic ways of viewing success are not salient among the suburban subjects. There was no significant difference for either sex or achievement level in this category. Only the over-representation of suburban pupils in the non-intrinsic category was significant.

Intrinsic poor. Neither achievement level nor school was statistically significant in accounting for scoring variations within this category, but the sex differences were significant at the .06 level. The distributions by sex, however, are difficult to interpret. The statistical significance derived from the larger number of girls in the middle category. Inspection of the school by sex distributions revealed that the urban girls were largely responsible for this result, with five-eighths of the members in this middle category. When the urban girls are removed, the distributions for the other five groups seem relatively similar.

Task orientation

Task tries. This category was intended to score all themes in which students were attending to their work: doing assignments, paying attention, etc. Although neither sex nor achievement level was statistically significant, there appeared to be slightly higher frequencies for girls and for the upper achievement group.

School differences were significant at the .032 level with urban students over-represented in the cell indicating respondents who had four to six stories containing attentive themes. Thus while the suburban and private schools (the "academic" institutions) were similar in their relatively even distributions between the middle and top cells, at the urban school almost 64% of the students had seriously-attending students in more than half their stories. This trend held for both boys and girls.

Task neglects. This category scored stories in which students neglected or delayed their work. While there was no statistically-significant difference for any of the three major variables, lower achievers appear to have higher frequencies than high achievers, and urban students seem to have fewer such themes than students at the other two schools. These small and insignificant differences are further minimized when one takes into account the relationship between word count and the scores in this category ($r = .177$; $p < .05$).

Reaction toward school

Reaction favorable. There were no significant school differences regarding positive affect toward school. The lack of school differences may in part be due to the extremely low scoring frequencies in the category. Less than seven per cent of the stories, 72 out of 1068, contained positive affect toward school; only 13 of the 178 subjects had protocols containing more than one such theme. There was no significant difference among the sexes in this category, and the almost-significant finding for achievement ($p=.056$) results largely from the disproportionate distribution among achievement levels.

Although the category failed to differentiate among the groups, it is important for another reason. The fact that so few subjects wrote stories containing positive references to the school situations depicted is a telling commentary on the way learning is perceived by students. It is of course possible that the pictures cued away from positive affect, and further research should certainly investigate more systematically the specific cue characteristics of the pictures used. Nevertheless a major effort was made, in both the initial screenings and in the pretesting, to select pictures which were not negatively cued toward the learning situation depicted. The low frequency of favorable themes about learning hints at a rather general failure of schools to make learning relevant and exciting for their students at least at an affective level.

Reaction unfavorable. This category provided the most significant school difference in the entire study. Less than half the urban respondents mentioned a negative theme, as opposed to almost 75% of the private and suburban students who included themes unfavorable toward school in their stories. Furthermore over 40% at these latter institutions had two or more stories containing negative references to school.

It should be remembered that there was a significant relationship ($r=.226$; p .01) between word count and scores in this category. Unfortunately there was no way of statistically controlling for protocol length in the Chi-square analysis, so it is not possible to assess systematically the effects of productivity on the results. Given the fact that the mean word count for the urban school was only 7% less than that for the suburban school, however, it does not seem that the large differences in the scores among students in those two schools can be attributed primarily to shorter stories by students in the former institutions.[11]

There was no significant difference in the responses of the three achievement groups. Whereas one might suspect that students doing poorly in school would be more negative in their perceptions of school situations, the results did not confirm this; in none of the three schools was achievement level a significant factor in accounting for negative school affect. Similarly the scores in this category did not seem to be affected by the sex of the respondent.

Characterization of teachers

Teacher dominative. In this category, including stories which characterized the teacher as threatening, domineering or unhelpful, there were no significant differences for any of the three major variables. As in the Reaction Unfavorable category, one reason for the lack of differences might have been the low scoring frequencies; only about ten per cent of the stories contained themes which were scored in this category, 100 out of 1068. The lack of school differences is most surprising, especially when one considers the dissimilarities in school atmosphere, types of teachers, and modes of instruction among the three schools. While the results show a larger percentage of students from the urban and suburban schools mentioning two or more themes, the overall pattern is not significant.

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[11] It should also be pointed out that the correlation of .226, while statistically-significant at the .01 level due to the large sample size, accounts for only about 5% of the variance in the category.

Teacher integrative. This category scored stories which portrayed the teacher as helpful or supportive. The school differences approach statistical significance ($p = .064$), with the private and suburban schools having a greater percentage of protocols with more than one mention of an integrative teacher. Unlike the previous category, this finding is consistent with the predicted differences between the schools, although it should be noted that the relationship between these category scores and word count was significant at the .05 level. Thus one must recognize the possibility that the greater frequencies for the private and suburban schools might in part be attributable to the longer stories written by students at those schools. The distribution of scores for boys and girls was almost identical for this category, and there was no significant overall difference for achievement level.

Combined categories

Additional analyses were conducted to explore more thoroughly certain aspects of the data. The first was designed to examine the relative frequencies with which the various groups employed extrinsic and intrinsic criteria of performance. For this analysis the scores of Extrinsic well and Extrinsic poor were combined into a single Extrinsic score, and similarly the scores on the two intrinsic categories were added to form a single Intrinsic score. A second part of this analysis focused on possible differences among the groups in regard to themes of success and failure. Scores on the two success categories (Extrinsic well and Intrinsic well) were added together, and the two failure or poor performance categories (Extrinsic poor and Intrinsic poor) were combined into a single Poor performance score.

Extrinsic criteria. The distributions of the combined extrinsic scores for school, sex, and achievement groups, indicated that only the school differences were significant ($p < .001$). The urban and suburban students generally scored higher than students at the private school. The suburban students had the highest percentage of stories with extrinsic themes; 75% had two or more stories in which the dominant theme was studying/learning primarily for functional/extrinsic reasons. Just over two-thirds (67.8%) of the urban school pupils had stories with such themes. In the private school, less than half (44.7%) of the students wrote stories with extrinsic as the dominant theme. Since there were no differences according to sex or achievement, the extrinsic criteria was singularly related to the school setting.

Intrinsic criteria. With regard to mention of intrinsic performance criteria, there similarly were no statistically-significant differences for sex or achievement level. However, school differences were again significant ($p = .028$). The pattern for the private and suburban students generally is complementary to the preceding analysis, with the former group high in mention of intrinsic themes and the latter group relatively low. The distribution of the urban pupils' scores fell between those of the other two groups.

Successful performance. The distributions of the combined successful performance scores for school, sex, and achievement group respectively indicated no significant differences on any of the variables. The distributions by sex once again are virtually identical, and the slightly higher scores for the urban school result from the high response frequencies from that school on all of the performance criteria categories.

It may be noteworthy that there were no significant differences among the achievement groups. The percentages of each group with less than two success scores was remarkably similar: 50.7%, 55.0%, and 52.4% for low, middle,and high achievement levels respectively. The groups also were undifferentiated with regard to the percentage of respondents mentioning three or more success themes.

Twenty-six per cent of the low achievers, 22.5% of the middle achievers, and 30.9% of the high achievers were found in the top two cells. Thus it does not appear that the frequency of success themes in the stories is related to the actual school success of the individual respondents.

Poor performance. Like the preceding category, there are no significant differences in mention of poor performance themes for any of the three major variables.

It is difficult to attach significance to such findings that indicate no particular relation between actual school performance and achievement imagery in projective stories. There are two reasons for this: (1) the definition of achievement status and (2) the problems that are implicit in relating projective material to actual performance on a variable such as school performance. We were unable on the first count to develop a system for comparing grades across the three schools. The marking systems were not comparable and any system for equating grades in the three schools may have been statistically defensible but untenable theoretically. In addition we did not develop a discrepancy score procedure in order to partial out the effect of intelligence upon achievement since this was not to be a major variable in our research procedures. Thus we had, in effect, a separate ranking of grades for each school, with considerable overlap at the mid-point. Our measure of school performance must be considered an approximation, at best. The second issue concerns the general relationship between school performance, even carefully defined, and achievement themes derived through projective procedures. There have been a series of studies on this topic (Atkinson, 1950; Bendig, 1957; McClelland, 1953; Morgan, 1952; Weiss, Wertheimer & Gosbeck, 1960; and Uhlinger & Stephens, 1960). The results of these studies have been to establish only an equivocal relationship between academic performance and achievement imagery. Because of these two reasons, the meaning of no significant relation between either successful or unsuccessful school performance and the projective stories remains inconclusive.

Summary

In this chapter we have presented a brief description of the development of a picture-story test used to assess pupil perceptions of various aspects of school. There were six major categories for scoring the stories - Social, Extrinsic, Intrinsic, Task Orientation, Reaction to School, and Characterization of Teachers. A description of the scoring criteria was included as well as information concerning the reliability of the system.

Although a factor analysis of the separate categories used for scoring the projective stories did not yield a conclusive set of results, there were significant trends that were clarified through the use of combined categories. For example, on Factor I (Intrinsic Well, Reaction Favorable, Task Tries vs. Negative Orientation), the suburban pupils' scores were furthest from the Intrinsic (etc.) pole of the factor. When the two Intrinsic categories were merged in a subsequent analysis, the suburban pupils had few intrinsic themes and a substantial number of extrinsic themes. In fact, 75% of the suburban pupils wrote stories with two or more themes of extrinsic or functional motivation. These differences were statistically significant. Similarly the pupils in the private school who had the highest scores on Factor I (indicating Intrinsic interest, etc.) manifested the smallest number of stories in the subsequently combined extrinsic and functional interest scoring categories. Unfortunately the meaning of the second factor that emerged from the analysis, Teacher Dominative and Teacher Integrative, did not become clarified through further analysis in combining categories.

Thus, even though the use of a set of projective assessment procedures did not yield unusually conclusive results, we did view the findings as important indicators of differences in perceptions and attitudes toward learning. It is important to note, however, that we did not design the study so that we would be totally reliant on any single measure as a basis for conclusions. The projective procedures can serve as one basis for information concerning pupil perceptions. We plan, in the later sections of this report, to bring together all of the information from the variety of sources we used to construct a set of conclusions. It is significant to note at this point that the projective procedures do tend to present school differences as the only consistent source for different responses to the school scene pictures.

Chapter VI

Student Interviews: Attitudes Toward School

Patricia Wertheimer

Introduction

This chapter presents the results from student interviews focused on questions about attitudes toward school. As we noted earlier a deliberate overlap of assessment procedures was built into the design in order to provide for a more comprehensive picture of attitudes toward school. The interviews were designed to allow the students to respond in their own words to our questions about school.

The interview schedule was administered by the Research Assistants, and the Co-Directors of the project, with subjects being assigned thus: girls were interviewed by female interviewers; boys by male. Both boy and girl subjects were further divided evenly among the interviewers to counteract possible interviewer bias. A full school period, and often more, was allowed for the completion of the interview, and answers were recorded verbatim.

The interviews followed a standard format -- first the pupils were asked what they considered to be the most important decision they were confronting at the present, and then further decision-making areas were explored. The second section of the interview followed the decision-making questions, when most subjects were talking fairly freely about themselves and their attitudes toward school. The second section, with which this paper concerns itself, utilizes the following format:

II-a. Of all the things going on around school, what are the most enjoyable and satisfying for you? Why?

II-b. If you had your choice, what would you exclude or do away with at school? Why?

III. Lots of people have been talking about how important learning and education are. What do you see as the point of your being in school? (Not the things people tell you, but what you feel.)

IV. Now I'd like to ask you some more specific questions, even though you may have already covered some of them in the discussion.

a. Do you see the value of school primarily as preparation for further education?

b. Do you see school as giving you preparation for a job?

c. Do you especially enjoy the social aspects of school?

d. Are you generally interested in the subject matter itself?

e. Are extra curricular activities important to you?

f. If "no" to all, is it simply that you're forced to attend? By whom?

Answers given to these questions are analyzed in this paper. Empirically derived categories were formed which describe the broad areas comprising the students' answers. This categorization reveals the major similarities and dissimilarities among the subjects' attitudes toward school. Further, an analysis was made of the qualitative differences in responses, since broad categorization often tends to conceal differences. This qualitative analysis, though not inconsistent with the quantitative analysis, provides a richer and more detailed picture of the students' attitudes.

QUANTITATIVE ANALYSIS

QUESTION IIa: Answers to the question, "Of all the things going on around school, what are the most enjoyable and satisfying for you?" were categorized in the following ways.First, answers which indicate that a particular course or learning opportunity are the most enjoyable parts of school activity. Two examples of this response category, which serve to indicate the wide range of responses scored under this category are the following. The first is from a private school girl: "I think classes are. I think it's because having a teacher, and having other people, especially in English, with things you've not understood before--it's having help in pointing these things out. This makes you see other things. Also, just having the facts, and getting them down. It's satisfying to feel you really know something." The second, from urban school boy: "Classes are okay." Both these responses are scored under the category Intellectual Activity.

The second category used in scoring responses to this question is Non-School Sponsored Social Activity, and includes before-school and between-class chatting with other students, chatting in the lunchroom and corridors, seeing friends, and fooling around. Category Three, School Sponsored Social Activity, includes all extra curricular activities sponsored by the school, such as playing in sports, attending games and dances, and club participation. The fourth category is Teacher Relationships, and includes statements such as, "The English teacher really gets her point across;" and, I like the student-teacher relationships possible here." The last category is comprised of statements showing a negative attitude toward school: "I don't like anything around here;" "Nothing really turns me on;" "I'm not too interested in school," and is called Negative.

Responses are scored in rank order--first, second and third statement. "Meeting a lot of friends--like in the cafeteria we eat together and meet after school. Also, some classes are interesting. The History teacher keeps the class alive--in English you feel like falling asleep," would be scored: (1) Non-School Sponsored Social Activity; (2) Intellectual Activity; (3) Teacher Relationships. "I'm not interested in much of anything. I suppose I like chemistry the best," would be scored: (1) Negative; (2) Intellectual Activity.

All students except the boys at the private school, mention social activities as being the most enjoyable thing about school more frequently than intellectual activity, if both school and non-school-sponsored activities are grouped together. Suburban boys, and the girls from both suburban and urban public schools, say as a first response that clubs, sports and dances (school-sponsored activity) are the most enjoyable activities in school; three times more frequently than classes by suburban school boys, twice as many times by suburban school girls, and sixteen times more by urban school girls. The urban school boys, however, prefer non-school-sponsored social contact to organized sociality, and say just as frequently that classes are most enjoyable. Both the boys and the girls of the private school say as a first response that intellectual activity is enjoyable more times than either or both kinds of social activity.

If one aim of the secondary school is to instill a love of learning and an interest in intellectual pursuits, it appears that the private school is by far the most successful of the three schools in this regard. The suburban public school's classes are chosen by its students as being the most enjoyable activity (as a first response) by 5 of the 28 boys, and by 7 of the 30 girls. The educators of the urban school seem to be encouraging an interest in learning fairly well in the male students (9 of 28 say as a first response that classes are enjoyable) (15 "class" responses altogether); but somehow are missing the girls entirely -- none of the 28 girls give "classes" as a first response, and only four altogether. The urban school boys are outstripped only by the private school girls in their interest in classes, while we suspect that their female classmates are spending their class hours in remembering or anticipating a football game. This state of affairs seems to call for some explanation, and will be explored in the qualitative discussion of answers later.

How successful are the three schools in eliciting participation in social and sports activities offered under the aegis of the school? Very successful, it appears, with all the girls in the sample, but only the suburban public school offers its boys activities that they prefer to individual contacts with friends.

QUESTION II-b: What do secondary school students complain of concerning their educations? What would they choose to change about their schools? Their complaints and suggestions for change are categorized in the following way. First, dissatisfaction with rules which regulate modes of dress, length of hair, and those which regulate their whereabouts in the school building--including rules concerning lateness, refusal to let students leave the school building for lunch or during a free hour, and the like. The category is called Personal Freedom, and the following complaint, from an urban public school boy, is included here: "The kind of order they have. They treat you, really, like you're in some kind of prison. They should not punish people for being late. It's too orderly--they're like police officers in school--they keep you under guard. They're scared of them talking, scared they'll do things. They should give kids freedom, some freedom at least." [Another, from a private school boy: I wouldn't have all the silly rules. I'd have only those which are necessary--a few based on health, safety, and relations to outside public. . . You can't be one minute late--as if anarchy is around the corner--chaos. I'd change the rules about dress, like having to have a jacket and tie, and saying that if you won't go along, then you're immature."]

The secondary category is called Intellectual Freedom, and includes responses showing a desire to have more autonomy in choosing academic program, progressing at one's own rate, or resentment concerning the pressure and/or artificiality of grades. An example, [from an urban public school girl: "I'd do away with subjects you have to take.

If you could pick your subjects, you'd do them better." And,] from a suburban public school girl: "The emphasis that goes on grades. Some kids, myself included, just work for grades. I don't think education was meant to be just a mark, but how much you can get out of a course."

Category Three, Teachers, includes such statements as: "Some of the teachers...They don't teach anything. You sit there and they put you to sleep. Some are too old to teach," and, "Mostly I'd change the teachers. A few teachers go fast, and that's okay, but others really flub-dub around. They go along like a snail--They need to be smarter. Also, teachers check up too much. Otherwise, it's just a waste of time. Very slow. Also I'd reduce the amount of sermons."

Specific Class, Category Four, includes: "I'd do away with math. I have to spend 1 1/2 hours every night to get a C; it's discouraging and I'll never use it. Those hours are unnecessary and frustrating ones. I just don't have a math mind;" and, "I'd probably do away with Physical Education. I know it's necessary, but I don't like it. I'm not very good at it--it causes me moments of discomfort, mostly Physical. In the past, I did feel humiliated when I was playing soccer, but that doesn't bother me anymore.

Obviously, these complaints are often very similar to those in Category Two. Differentiation has been made according to whether the responses seemed to be dealing with the fact of educational requirements--a complaint about the system itself (Category Two), or that the student has some specific class which he does not like for one reason or another

Category Four. Some students are generally satisfied with school as it is. Their responses, such as: "Can't say anything. The most important and interesting thing about school is all the different things. If you don't like them, they're for somebody else to enjoy," are included in Category Five, No Complaint.

Category Six, Peer Complaints, is comprised of statements like: "Some of the kids around here have a very poor attitude toward others. Too many cliques;" and, "Some kids...A trouble-making bunch. In my math class, some kids are really wise guys."

Category Seven, Tests and Homework, includes complaints about pressure of assigned work, and intrusion of studying on free time. Category Eight is Others, made up of miscellaneous complaints. At the urban school, nine out of the eleven responses in this category are complaints about the length of the school day or classes: the urban school decided this year to insert an extra period of physical education, thus lengthening the school day--an unpopular change.

Again, responses are rank ordered: First, second, and third.

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Question: "What are Your Reasons for Being in School?"

	School & Response No.	Boys							Girls						
	Total	13	7	6	13	1	1	6	8	6	4	15	6	0	2
School A Urban Public School	1	6	1	3	9	0	5	4	21	0	0	2	1	2	2
	2	4	2	0	4	0	0	1	3	1	0	3	1	0	0
	3	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	Total	10	3	3	12	0	5	5	24	1	0	5	2	2	3
		C1*	C2	C3	C4	C5	C6	C7	C1	C2	C3	C4	C5	C6	C7
School B Suburban Public School	1	7	6	5	4	1	1	4	5	6	3	10	3	0	1
	2	5	1	1	8	0	0	2	2	0	1	4	3	0	1
	3	1	0	0	1	0	0	0	1	0	0	1	0	0	0
School C Private School	1	3	3	6	9	0	1	2	1	1	17	10	1	0	0
	2	1	0	1	5	1	0	1	2	1	0	4	0	0	0
	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	Total	4	3	7	15	1	1	3	3	2	17	14	1	0	0

*Categories

1 - Job

2 - College

3 - Learning

4 - Personal Success

5 - Social Progress

6 - Diploma

7 - Negative

Question: "Of all the Things Going on Around School, Which are the Most Enjoyable and Satisfying for You?"

School	Response No.	Boys					Girls				
		C1*	C2	C3	C4	C5	C1	C2	C3	C4	C5
A Urban Public	1	9	9	4	0	4	0	3	16	0	3
	2	6	6	2	2	1	3	0	5	2	0
	3	0	0	0	1	0	1	0	0	0	0
Total		15	15	6	3	5	4	3	21	2	3
B Suburban Public	1	5	5	15	0	2	7	5	16	0	2
	2	8	6	2	2	3	2	2	5	5	2
	3	1	0	1	1	0	0	0	0	0	0
Total		14	11	17	3	5	9	7	21	6	4
C Private	1	12	6	1	2	2	17	2	9	1	2
	2	2	0	0	1	0	2	0	6	6	0
	3	0	0	0	1	0	0	2	2	1	0
Total		14	6	1	4	2	19	4	17	8	2

*Categories

1 - Intellectual Activity
2 - Non-School Sponsored Social Activity
3 - School Sponsored Social Activity
4 - Teachers
5 - Negative

Question" "What Would You Like to Change About School?

School & Response No.		Boys								Girls							
		C1*	C2	C3	C4	C5	C6	C7	C8	C1	C2	C3	C4	C5	C6	C7	C8
A Urban Public	1	8	1	3	4	2	0	1	5	2	2	5	9	2	0	4	2
	2	0	2	4	5	0	2	1	0	1	0	0	1	0	0	0	3
	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	Total	9	3	8	9	2	2	2	5	3	2	5	10	2	0	4	6
B Suburban Public	1	5	5	2	5	6	4	0	1	5	7	1	5	4	4	3	1
	2	2	5	2	2	1	0	0	1	1	4	0	1	2	0	1	0
	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	Total	7	10	4	7	7	4	0	2	6	11	1	6	6	4	5	1
C Private	1	5	6	3	3	2	2	1	3	8	4	0	3	4	8	0	3
	2	2	1	1	0	0	0	0	1	1	0	0	0	10	0	0	0
	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	7	7	4	3	2	2	1	4	9	4	0	3	5	8	0	3

*Categories

1 - Personal Freedom
2 - Intellectual Freedon
3 - Teachers
4 - Specific Class
5 - Nothing
6 - Peer Complaints
7 - Exams and Homework
8 - Other

Complaints, like choice of what is most enjoyable about school, tend to vary from school to school. The suburban public school students, both boys and girls, complain more than the other groups that they wish they had more intellectual freedom; the urban school students complain least about this, though they complain most that they dislike their teachers, and would change or do away with specific classes. If complaints about course choice, specific class and teachers are grouped, however, the students at the suburban and urban public schools are about equal (from 17 to 20 responses); both schools higher than the private school (boys, 14; girls, 7). The urban school boys make the most complaints (number of complaint responses minus the "Nothing" responses), with the private school students complaining least of any school. The girls of the private school, however, complain most frequently of any group about other students, and the girls of the urban public school make no such complaints.

QUESTION III: Answers to this question reveal the adolescents' attitudes toward a high school education generally and what purpose they plan to make of this education.

Category One, Job, includes such statements as, "You need a high school education to get a decent job. The longer you stay in school, the better the job you can get." Some students mention jobs which require further education, such as a career in law, but if "job," rather than "college was the answer given, the response was scored in the Job category. College is category two.

Category Two: "To get into college," Learning is Category Three, and is comprised of statements which reveal an interest in intellectual activity per se: "I'm in high school to learn everything I can. I come to learn--I could be with my friends on the outside." Another: 'It's just something you have to do--it's a drag not to learn anything. Because ignorance is a drag. People have something inborn in them that makes them want to discover or pioneer."

Category Four, Personal Success, is made up of statements that indicate that the student feels that he can't get ahead in the world without an education, either as general preparation for adult life--a way of avoiding exploitation--or as a means to actualization of potential. The following statements fall in this category: "To prepare yourself for the future. I think it helps to adapt you to your society, and to get along socially. There was a time when I hated school, but I think I realize its importance now, even though I don't get the best grades;" and, "To better oneself... to learn about what's around you, a basic knowledge." If earning a living is specifically mentioned rather than the more general "get ahead in the world and make something of myself", the statement is scored under Job category.

Category Five, Social Progress, is comprised of statements expressing the idea that an educated populace is necessary for the maintenance and/or advancement of society, for the education of future generations, or for the amelioration of social ills. An example, from a private school boy: "...Things go smoother. Everyone will advance; there will be no division between negroes and whites. There wouldn't be slums, or else everyone would be in slums. Everyone on a common ground...everyone an individual, and everyone trying to become part of a whole. It's not easy to do; the school falls short."

Category Six, Diploma, includes statements that a reason for being in high school is simply to obtain the credential--the diploma. An urban public school boy puts it: "They might ask for a diploma--at least they'd know that you'd graduated, anyway."

The final category, Category Seven, is made up of responses which show that the student can find no good reason for being in school. "...I'd rather leave this school. I don't like this school; I can't see anything in it at all. It teaches you, but when you leave here and go out and look for a job there's no placement. It teaches in a general way, but it doesn't help in regard to a job. The specific payoff in job training that I want just isn't here--That's about the size of it. I can't see anything here. I'm in school until 2:30, then forget it!"

Responses are ordered as 1, 2, and 3, following the order in which they were mentioned, as in the previous questions.

If we look at first responses alone, it appears that the boys of all schools, and the girls of the suburban school, have more diversified reasons for being in school than do the girls of the urban school and the private school, whose responses cluster--the urban school girls almost unanimously choosing Job, and almost all the private school girls choosing Learning and Personal Development. When we look at the total of responses for each category, however, it appears that the students of the suburban school are a more heterogeneous group in terms of their reasons for being in school than the students of either of the other two schools--though both boys and girls choose Job and Personal Success more than other categories, they also give other reasons with substantial frequency, including an intrinsic interest in learning and plans for college. The girls of the suburban public school (and, interestingly, only the girls of the suburban public school of all the groups), are also educating themselves in order to become better parents or to contribute to the progress of society.

The boys of the urban school are not, evidently, planning for college, nor do they enjoy learning for its own sake. This is in sharp contrast with their responses about what they enjoy most in school--classes are tied with casual social activity as being the most enjoyable. They do see school as being preparation for a job, and as general preparation for the future--as a stepping stone to "getting ahead". The third most frequently mentioned category, Diploma, is probably another way of saying the same thing; a diploma is necessary for getting a better job, as a minimum requirement for being accepted to the working world.

The girls of the urban school are single-mindedly seeking preparation for jobs through their high school education. More than any other group, they seem to agree on one purpose for being in school: 21 of them mention job preparation as a first response and, furthermore, go on to give very few second or third reasons. None of the girls at the urban school say they are interested in learning per se, which is quite consistent with their previous report of what they enjoy most about school.

The private school students as a whole are the most homogeneous groups; both boys and girls are interested in learning, self-actualization, and being equipped to deal with the world as educated adults. They do not mention preparation for college (similar to the urban school students) or job (unlike any other group). The private school girls, consistent with what they have mentioned as enjoying most about school, see an intrinsic value in learning as a reason for being in school, more than any other group.

All students, except the urban school girls, think that school is important as a way of giving general preparation for life. Boys, more often than girls, can find no reason important to themselves for being in school.

QUESTION IV: Answers to this question were scored simply "Yes", or "No." Most of the information gained by this question tends to be a repetition of ground already covered by previous questions, but provides a check against the longer responses already made.

These data for the boys are incomplete in this section.* It is to be remembered, for example, in the discussion following, that "60%", in reference to the private school boys, means 60% of thirteen. On the following charts, "Yes" responses are recorded. A notation such as 21/30 means that 21 of the 30 respondents answered affirmatively. The difference is made up of negative responses--in this case, nine of the suburban school girls who answered the question said, "No."

IV-a. DO YOU SEE THE VALUE OF SCHOOL PRIMARILY AS PREPARATION FOR FURTHER EDUCATION?

School	Boy	Girl	Both
School A urban	14/23	17/28	31/51
School B suburban	22/28	21/30	43/58
School C private	9/13	22/30	31/41
Total aff resp.	45/64	60/88	105/152

IV-b. DO YOU SEE SCHOOL AS GIVING YOU PREPARATION FOR A JOB?

School	Boy	Girl	Both
School A	15/24	28/28	36/68
School B	16/28	20/30	36/58
School C	5/13	16/30	21/43
Total aff. resp.	36/65	64/88	110/153

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*Only thirteen of the boys in the private school were asked these short answer questions. Extensive discussions on prior questions by the boys in that school had made these questions seem inordinately redundant.

IV-c. DO YOU ESPECIALLY ENJOY THE SOCIAL ASPECTS OF SCHOOL?

School	Boy	Girl	Both
School A	13/23	22/28	35/51
School B	23/28	24/30	47/58
School C	7/12	16/30	23/42
Total	43/63	62/88	105/151

IV-d. ARE YOU GENERALLY INTERESTED IN THE SUBJECT MATTER ITSELF?

School	Boy	Girl	Both
School A	13/22	22/28	35/50
School B	18/28	26/30	44/58
School C	6/13	28/30	34/43
Total	37/63	76/88	113/151

IV-e. ARE EXTRA-CURRICULAR ACTIVITIES IMPORTANT TO YOU?

School	Boy	Girl	Both
School A	5/21	14/28	29/49
School B	17/26	19/30	36/56
School C	8/13	20/30	28/43
Total	30/60	51/88	81/148

IV-f. IF "NO" TO ALL THE ABOVE, IS IT SIMPLY THAT YOU'RE FORCED TO ATTEND?

No students answered Question IV-f in the affirmative; even those who feel negatively toward school, and see themselves as getting little or nothing out of it, do not see themselves as being forced to attend. Most of them do think that some education is necessary to get along in the world, and even when they are critical of the quality of education they are receiving, or unhappy at school, they prefer to stick it out. In some cases, it is clear that they view the alternatives as even worse than school. As an urban school boy puts it, "once you reach the golden age of 16, what are you going to do with your life? Work as an apprentice garbage man? Make some kind of living for yourself?" And another, "Well, school beats working, in my experience." A private school boy says, "I'm not hungering for learning--if someone offered me a happy life, I'd take it. You have to be hit with the yearning to be more intelligent, but it hasn't hit me yet. I stay in school to get into college, and then into a job. It's all regulated, and you can't escape it unless you want a menial job."

The affirmative answers to Question IV-a show that about 75% of all the suburban public and private students regard high school as preparation for further education, and about 60% of the urban school students agree. It is interesting to note that we might expect the proportion to be higher at the private school where virtually 100% of the graduates do go on to college, and which offers only a college preparatory curriculum; and lower at the urban school where only 16 (27%) of the sample are taking the college course. At the suburban school 40 of the 58 subjects (or, roughly 69%) are taking the college course. There is some reason to believe that many of the respondents treated this question in the abstract, rather than one which they answered personally. For example a college-bound suburban school girl said, "No. What about the kids who don't finish school?" An urban school girl, who plans to get a job, said, "Yes, I guess so. It teaches you so much that if later you want to go to college or something, you would know something." An urban school boy, in the business curriculum, said, "Yes, if you get the marks. I was in the college course for a long time, but I didn't pass it."

Two-thirds of the suburban school girls see school as preparation for jobs, but frequently in quite a general way: "I guess it does: in responsibility handling;" and, "Yes, in being with and handling people." The urban school girls unanimously agree, as we should expect, that school prepares them for jobs; about half the private school girls think so, and less than half of the private school boys. Even at that, those who think that school prepares them for a job think that it does so indirectly: "Yes, not in a direct way, like skill--interior design--but yes. The fact that you've gone to school is more important than if you've learned anything!" Over half of the suburban public school and urban public school boys think of school as job preparation, though the suburban public school boys also tend to see this as an indirect process--"To get to college, to get a job like Law;" the urban school boys, when they say they do not see school as job preparation are frequently commenting upon the quality of education they feel they are receiving, rather than what they want from school. "Probably not. The Air Force is a better way;" This one isn't. I wish it was (preparing me for a better job)."

Roughly 80% of both the boys and girls at the suburban school enjoy the social aspects of school, while boys and girls of the private school are considerably less enthusiastic--about half say they find enjoyment in the social life of the school. At the urban school, only half of the boys answer this question affirmatively, while about 80% of the girls say they do enjoy socializing at school. These answers are in good agreement with responses previously given when asked what they enjoyed most about school, except that the urban school boys' previous answers would lead us to expect more affirmative responses to this question.

In replies to whether or not they are generally interested in the subject matter, about three-fourths of the suburban school students say 'Yes', as do more than half of the urban school and private school boys and almost all of the private school girls, which is fairly consistent with what we might expect. However, the urban school girls, who have until now expressed almost no interest in classes or intellectual activity, surprise us. Twenty-two of the 28 claim to be generally interested in the subject matter itself! It may be somewhat surprising, as well, that there are more affirmative answers to this question given by the total group than to any other in this section.

Extra-curricular activities are important to about two-thirds of the suburban school boys and girls, two-thirds of the private school girls, and about 60% of the private school boys. Only a quarter of the urban school boys find these activities important, and half the girls. It appears that social aspects that are enjoyed by the urban school students are mainly non-school sponsored for the boys, and spectator sports and dances for the girls.

QUALITATIVE ANALYSIS

SCHOOL A

The Urban Public School Boy

The urban school boy does not like very much about school. Unlike the suburban school boy, extra curricular activities do not often seem to provide him with activity which he enjoys, either because he works in the afternoons, or because he prefers to spend his free time away from the school. He does mention liking sports, but not with nearly the frequency of the suburban school boy. He cherishes the free time he has in school, snatching moments to talk with his friends. Besides these social contacts, he mentions liking some of his classes, but this seems to be because he can't think of any alternative. At any rate, his enthusiasm about his classes is under very good control, and frequently he says he likes a subject because the teacher departs from that subject during class.

He does not like his teachers--they lecture too much, he thinks; they go too slowly, and don't allow student participation. There are some exceptions, which perhaps illustrate the rule: "I like physics class. The idea is interesting, and the teacher makes it interesting. He teaches in a different way. He'll explain it and talk about it with us--he won't just open up a book and read to us."

On the whole, the urban school boy, even when he says he likes some things about school, tempers his favorable comments with additional statements that show he is bored and dissatisfied: "I have some interesting classes this year. There's really nothing that satisfies me around school. A rally before the Thanksgiving game...I don't participate in extra curricular activities. Really nothing gets to me...little things help--give you a smile, at least." "I like my science classes. It's just too bad that they're not more specialized--no specialization. They're too general--a quick introduction, not what you really need to go into materials more deeply. Work in courses could be much more satisfying if it were tougher. I could honestly say I'm intellectually bored." "Classes are okay. Well, I like lunch--a chance to meet everyone, relax and enjoy yourself."

Often, he does not find anything very positive to say (except seeing his friends) about school. "I like talking to friends at lunch and in the corridors. I enjoy some classes when the teacher gets away from just the school work." "I like two-thirty, when school ends. I like to meet friends and fool around in the cafeteria." "Nothing--except the two o'clock bell." "I don't know (what I enjoy)...there isn't much...an easy day when there are no tests coming up." "Nothing...the only thing I like is one or two periods in shop--there we just do our work, and talk if we want."

Sometimes, he is able to convince himself that he can like what he must do: "I like the learning part more than the social activities. Learning is during school, and you have to like that. Social activities are after school--you don't have to like that, necessarily. If you don't like something, it will be hard to learn. I understand that it's hard to like some things, but if you think of the next 50 or 60 years ahead of you, it's important, and you say, 'I'd just better like it.' Your lifetime, it's important. I'll sacrifice a few years to have many years of happiness... It isn't for very long, twelve years, compared to how long you'll live. There's a reason for sacrificing, convincing yourself you can like what you have to do. That's it."

Other times, he can't convince himself to adjust: "I've been fooling around in school since about the seventh grade. I don't study. I bring books home, but I never look at them. I tell my parents that the studying is done. I like the study classes the best, which means I can watch the girls. Also, I find it interesting to fool the teachers. But it gets me into trouble, so I'm always staying after for sassing the teacher and coming in late."

He complains most about rules and regulations, his teachers, and certain classes. He, with the urban school girl, makes the fewest complaints about the educational system in general, his complaints seem to be more immediate. Whereas the students at the suburban school are aware of competition for grades among themselves for college entrance, the urban school boy does not feel the struggle to compete with his peers, but rather dissatisfaction with school rules and classes.

"(I don't like) the kind of order they have. They treat you, really, like you're in some kind of prison. (They should) not punish people for being late. It's too orderly. They're like police officers in school, they keep you under guard. They're scared of talking, scared to do things to give kids freedom, some freedom at least. (I don't like) the teachers--their attitude toward children. They show how tough they are to try to fool the kids--they don't fool nobody--just pick on them more. (There should be) a better atmosphere in class--school is supposed to help you grow up, be more mature; but you're not treated that way, you can't learn to be more mature. That's the really important change that's needed." "They should change the punishments. I'd like to have younger teachers; they seem more enjoyable. They seem to like you better than the old ones, you know, understand you better." "I see it only as the school imposing... hate being told what to do all the time. It would be okay if there were more teachers you could like. Real good guys could help you learn. Rules, rules: Stand up, etc. Try to make us perfect: They forget I guess, what it was like."

"(I would change) a lot of the teachers. Most of them are lazy and dull. They can't keep the class going, and give you study. They emphasize midterms too much. If they dislike you, you have a hard time passing. They think their subject is the main one--you can forget everything else but theirs. Some teachers don't have control of the class, others are too strict; always at extremes. I'd do away with history--it's not important, no sense in it. Why should you not graduate just because you don't know what happened 200 years ago?" "Classes are a drag--55 minutes. Teachers talk. Wish classes were 30 minutes long. School is a drag sometimes. On the whole, okay. Like those days when you're tired, can't keep your eyes open."

The urban school boy does believe that completion of high school is a necessary passport to the future, though often not because of the actual preparation it affords him, but because "...they might ask for a diploma. At least they'd know that you've graduated, anyway" "Get the diploma is the only reason (I'm in school)...the classes aren't worth much...lots of jobs require a diploma." "I really don't see any value to most of what I'm doing now--although I think it does give you information that will be useful later.'

For him, the use of that information is in making a living, or in making a success of himself. "You'll get a better job if you stay in school--the longer, the better." "If I could make it on my own without going to school, I wouldn't go to school. It probably wasn't true 50 years ago, but today most kids know they've got to go to school to achieve what they want to achieve. The better you do in school, the better you'll do in life. If you meet someone with more education in later life, he can take advantage of you."

I'm looking for a bit better education for a bit better job. I don't care what anyone tells me about school--I make my own decisions on that--I'd rather leave this school. I don't like this school, can't see anything in it at all. It teaches you, but when you leave here, and go out and look for a job, there's no placement. It teaches in a general way, doesn't help in regard to a job. The specific payoff in job training I want just isn't here--that's about the size of it. I can't see anything here. I'm in school until two-thirty, then forget it!"

Occasionally, he doesn't see any point to school--he doesn't seem to be convinced that it will benefit him. He thinks so, and he doesn't think so: "When you graduate from school you get a better job, more than non-grads. Only in some cases, though, some kids who quit school could be a foreman. But it's something to do, instead of just hanging around all day. I'd rather do the last--hang around--but I'd still choose to go to school, and think of the future. One teacher said he'd make the midterms so hard we'd all flunk them. Makes you wonder about who's school for." "I don't think there's any point to it (school). I wouldn't like to be working full time, but school is school. After you graduate from junior high, you've learned all you have to learn. From then on, it's just the same things--in a more complicated way."

Perhaps inconsistently, considering the quality of the actual education he feels he is getting, he believes that his high school classes will prepare him generally for the world. When he expresses satisfaction in school, it is when he can view school as helping him to grow, to become more aware of the world; not when he considers his particular academic interests. "(The point of school) is to grow up--it teaches you to grow up. You need the learning, but more for worldly knowledge, general knowledge--about kids, ways of getting along with them; help you to be more grown up, a better adult. Learn how to grow up. Being able to make decisions and face problems; get along with other people; to conduct yourself, how to dress, be clean, be yourself. A high school career will affect you up until you die--everything you do will affect what you do then. My grandparents are decent people; all that, they say, stems from high school."

"I think, first and foremost, would be a general education--to make you a little more aware of yourself and things around you. A main reason--

that's it. I am satisfied there's a payoff in going to college. Most people agree that higher education is definitely essential. I can make the system work, pay off, can get the grades--why should I question it?" "You've got to have this in today's kind of world--at least high school. In a certain sense, I'm pretty satisfied with school. I figure it's going to help me more than if I didn't go. Even if I didn't go to college, without high school I'm badly handicapped."

In general, the urban school boy-faced with an experience that offers him very little enjoyment or stimulation, and who feels oppressed by his teachers and administrative rules--clings to the hope that what he is told about the necessity of a secondary education is true; that without it, he will not be able to make something of himself in the future. Since very little that he encounters in school--aside from contact with friends--is intrinsically valuable, he relies on the extrinsic usefulness of education.

The Urban Public School Girl

In most ways, the urban school girl presents the most consistent attitude toward school of any of the groups. She sees school as job training. In fact, she reacts toward school very much as if it were a job: She sees school work as tasks to be completed, some of which she dislikes more than others; she doesn't like to work overtime; she most enjoys the Christmas party; she complains about the length of the working day and plant conditions. School is definitely, for her, a means to an end. A word count shows she has less to say about school than any other group, either pro or con.

Since she seems to have such a clear idea of her own purpose in being in school, perhaps she does not feel the need to speculate very much about other purposes or values of education; at least, she does not indulge in such speculation. Neither are her complaints as bitter or lengthy as those of the urban school boy--she accepts the routine and the restrictions with apparent equanimity, though she finds some classes or teachers boring or difficult. She does not seem to resent course requirements, showing little need for more intellectual freedom--only twice mentioning this kind of dissatisfaction: "I think they should do away with subjects you have to take. If you could pick subjects, you'd do it better;" and, "I think they should just let you pass what you can do, and what you'd like to do--let you take what you like and are capable of doing."

She likes best going to games and dances, but does not mention that she participates with pleasure in clubs or other kinds of activities; nor does she say at all frequently that she enjoys seeing her friends during school hours. "I like the games and dances. You have a chance to be with a whole lot of people." "At the dances and games, it feels good to see them talk, and fool around. You don't have teachers teaching you." "I like the games--there's the excitement of wanting your team to win, and seeing all your friends." "I enjoy the Prom the most. It's fun to see the kids all dressed and out of school, and see everybody's boyfriend, etc. Also, basketball games--we walk in in great moods--we really make a night of it, and have a fine time."

She complains most about classes which she doesn't like, or doesn't do well in. "History...I just can't take it. I don't enjoy it. You should know about your country now. What else can they teach you? When are you ever going to use it anyway? "Stenography--I'm flunking it and I hate it."

"English--it's boring." "History...I'm not really interested in the past. That's what we're learning, not the present, and it's boring." "English is important to get along in everyday life, but if I quit right now, I'd have enough education except for typing and shorthand. The other things are just a waste of time." She is not happy with some of her teachers: "The English teacher. I don't like her, and she doesn't like me. She's given me a couple of D's that I don't deserve." "Some of the teachers--they don't teach anything. You sit there and they put you to sleep. Some are too old to teach."

She resents the amount of homework that she is given: "Homework ...I think you have enough work to do in school. Cut down on the homework, at least. It's too much, especially on weekends. You like to have some time for yourself, and there's none with all the homework. They're building up pressure more and more here." "Each teacher thinks their subject is the only one you get homework in. There's too much work at night. I like homework, but they give five and six hours' worth."

The urban school girl is the only one of the group who, when asked what she would change or exclude about school, mentions physical aspects of the school. "Some of the dirty bathrooms...half of them don't have doors. The ceilings are falling apart. The ceiling fell in one of the classrooms, just missing a person." "The swinging doors in the halls are dangerous." She also mentions such things as having to walk too far between classes, and that the lunches aren't worth thirty cents. Either she does not expect school to be very interesting, or thinks that by its very nature it cannot be interesting--or both; she does not, when given the opportunity, ask for this kind of change. Her complaints about the school are explicit and limited--and tend to be trivial.

The urban school girl does not mention once that she is in school because she enjoys learning itself. She does say, but only one time, that it is "good" to learn ("Education makes everything clearer. You know at least something about most things. It's good to learn."); and that it is "important" to learn ("Everybody should have an education, because of all the things going on. Even people in factories need it, and it's getting more important all the time.") Overwhelmingly, she sees school as preparing her for a job; "If you stay in school, you've got a better chance of getting a better job." You really do need an education--I know some people who quit school, and are out of a job and can't support families." "To prepare for a good job, and get promotions." "Not to be a bum--be able to get a job." "I'm just going to get a job."

She does not indicate that she is interested in her classes, that they excite her imagination; or that she loves the discussions, or that she looks forward to such-and-such a class, etc., when asked what she enjoys about school, or her reason for being in school. When asked, however, "Are you generally interested in the subject matter itself?", she says (22 times out of 28), "Yes." It may be that she is reluctant to admit, unequivocally, to having no academic interest, when asked directly. Or, she may indeed have some interest in her subject matter, but there is little reason to suppose that it is very intense or absorbing.

If the urban school girl does not love school, neither does she seem to hate it. She sees a definite point to her being in school, and much of the routine drudgery which might otherwise be more frustrating to her is probably seen as serving a desired end. She does not think that school is keeping her from doing what she really wants (except perhaps enjoy her present free time), but that it is getting her where she wants to go.

SCHOOL B

The Suburban Public School Boy

Though the suburban school boy finds things to like about school, especially in sports and other activities, these seem to be--to some extent--the sugar coating on a pill which, if not intolerably bitter, must be swallowed with irritating regularity. He says, "I like after-school sports, and extra-curricular activities, like student government. They help overcome the drudgery of the school routine, take out the frustrations and anxieties that build up during the day." "I like the chess club. To rebel from the routine of school--it's always the same pattern; and every chess game is different. There's so little variety in school." "The only time I like it is when I have time to fool around with friends. That's not even that great, but it breaks up the day a little. It's the best thing about a pretty lousy place." "I like lunch--it's a break to get away--a cool oasis in the middle of the desert. You go there for relief, and then you've got to get back to the desert." "I get bored with the same classes every day."

He recognizes that the suburban school is quite a relaxed and permissive school, compared to other public high schools. He complains, for example, more about work pressures than disciplinary rules. He comments, "I enjoy the school itself--the privileges, the coke machines, ice cream machines, and lounges. You're treated well. It's the best school I've ever heard of."

"It's very relaxed here, like a private school, very privileged. Not many schools allow you to go to the cafeteria (during study periods)." Even so, he feels the pressures of routine and drudgery in his class work. He finds relief not only through activity with friends and in clubs and sports, but in certain classes as well. He enjoys a class which offers him some variety--a class that is different in some way from the others. "I look forward to gym, it's a change from the routine. And, chem lab is fun. You can do experiments, and get away from straight lectures." "I like chemistry. You're not given the answer, but question the answers." "I like phys. You don't have to sit in class and listen or study. You can fool around." "I really like government, it's a good sharpening block. We have battles and debates over issues."

A teacher can make all the difference: "I enjoy Spanish, but I think it's the teacher. I actually look forward to going to the course." "I like English. I like the way the teacher handles the material. The other classes, I don't dislike--they're like all regular classes, but they don't turn me on." "History--the teacher is very funny. I don't like the course, but he's good."

He sometimes feels pressure from the competition for marks, as well. "School has escaped its real purpose. It's who can get to the top first--grades--got to get there first. You don't really learn things, you just cram for tests. You should be able to get out of it what you want to get out of it." "I would do away with grades. I don't know if you can mark a person as to how much he really knows. You can't mark a person's intelligence or how much he comprehends a subject--grades just aren't sufficient."

The emphasis is on marks instead of learning--everyone emphasizes you've got to go to college, and how do you get to college without good marks?" "I don't like the competitive attitude here. I like the idea of continuous learning rather than the annoying pressure and competition for marks here." "If we didn't have to worry about marks we could enjoy things better."

He resents being required to take subjects for which he can see no application for himself. English, history, and foreign language are particularly irksome to him: "English should not be compulsory for three years. I'd do away with English and History--after 10 years, you don't need it." "I would eliminate a foreign language--it kills me. It's not related to my future vocation. I spend all kinds of time memorizing--just have to take it--looks better on the record, but I don't really need it."

However he may perceive school personally, he is convinced that the world considers it a necessary step toward success in the future, and he tries to conform to the system, sometimes with some cynicism: "School gets you ready for the future, a job. It prepares you. That's what people tell me--it doesn't really prepare you, but you need it if you're going to get anywhere." "What do I enjoy about school? Nothing, except the end-of-school bell. Nothing...I'm surprised...there should be a reason I come. Maybe I just want to be 'nicer people', stuff like that. Do you need to be turned on to do well? You can put out and despise school. There are influences (father), so you put out, unless you're a rebellious type." "There's no value in my being in high school. But from what people tell me, I need it for college; you need college for work. It's just kind of a step to get to the end."

On the whole, the end (usually college, and then a profession) is one which he accepts, even though he may feel that he has little actual choice in the matter. "You have to go to school, to learn. It's hard enough getting a job without a college degree, let alone without a high school degree. College is something of a status symbol for people who come from a nice neighborhood like we do." "The main thing you're here for is to get ready to go to college. You can try hard and not get to college, because of your marks, and get a job, but you won't be so successful. You're forced here, not only by laws--like if they took the law away, how many good jobs could you get at 15 or 16? You don't know a trade, and they gang up. It's important to have an education to succeed in life."

"I think education is important. I've got some cousins who just finished high school, and I can see what happened to them. My father talks to me a lot about this. In junior high school I wasn't with it, but now I can see that an education is important. First, for your further life out of school, when you're on your own. Plus if anyone has goals, you need an education behind it. Goals of being someone or something--the president of GM, being well off, instead of in trouble. It's particularly important if you want college."

"Every time report cards go out, the subject comes up again. He uses the examples of relatives and friends that I know well, and I can't deny it--they've done well because of an education. He gets touchy when the reports come out, and the argument is: 'How come if you buy this, your grades aren't better?'

"I don't think I'd ever drop out. I'd stick it through till my senior year--it's the area I live in. If I lived in a city where it's the normal thing to drop out, it might be different, but living in a suburban city like this one, one doesn't drop out. Education is important, but education isn't easy for me to complete--that's the bind. My father, plus school, helps in a way. If I was left on my own, I might not think this way. I might stay in school and fool around. Might do what I want, but this way they tell me. The other way, I might have found out for myself, but I'm not sure."

Sometimes he chafes under school and parental pressures, and sees high school as a barrier to what he really would like to do. He feels frustrated that there seems no way to escape the system. "You do have to know something, be rounded to a certain degree, but a lot of people who go through school and college, and make it, would do so even if they didn't go. You don't need the education that much. I'm not sure there's that much payoff being in school. I want to go into business, and get a franchise. I have to go to school to learn bookkeeping, but not four years. These two years, I could have been working.

I wouldn't mind being something else, like a lawyer, you know, but you have to go to school too long, and by that time, you could already be established. School holds me up. I want to get an early start, and I don't want to do the things that I don't need. Instead, I'd like to do the things that I do need. I can't do the things that I see myself as wanting to do, or need."

"(I'm in school) mainly because I need it to be a lawyer. Otherwise, I would drop out. I'd finish high school, but I'd never go to college... I mean, all these people all the time telling about how you have to study all the time, get good grades, I mean, who needs it? It has no meaning for me now. I know in ten years I'll probably say that I've been foolish, but I'm 16 now--not 26. I want to enjoy things, have friends, talks with them, and studying gets in the way. I'm concerned about now, not the future. I mean, I could get killed tomorrow, and what would I have then?"

On the whole, though these last statements represent his most negative and pessimistic moods. Most of the time, the suburban school boy regards school as necessary to him, and though he complains of routine and repetition in what he is forced to do there, it also offers him, through activities and contact with his friends, a good deal of enjoyment.

Suburban Public School Girl

The suburban school girl finds the most satisfaction in school in making social contacts. More than the suburban school boy, who tends to participate in activities either as a release from tension or because he is interested in the particular activity involved ("I really enjoy chess meets. I'm an avid player; I take out chess books and study the masters.") She joins clubs to be with other people and meet new people. "I like clubs. You can meet new people, and have fun." "I enjoy AFS Club--some of the nicest people are in it." "I like sports, and clubs. Especially sports. I like to be active. It's fun to participate, great to meet friends from other schools through sports, and those from other classes." "I like to meet new people--it's interesting to see if they want to be friends or not." "I like AFS Club. It's like history. It's interesting, and you get involved with many types of people--kids from other countries." "I like study periods 'cause you can get homework out of the way and talk."

"Dances and movies and football games...They have so much spirit. Everyone else is there, and I'm with all these other people who have the same interest."

There is a quality of busy-ness, activity, and high sociability about the suburban school girl; she is the potential clubwoman, active in the community, socially aware. She wants very much to be in the group: "I enjoy getting in on the main core of things going on. Getting inside of things, clubs. If you're on the outside, you stay on the outside, and don't get anywhere else." Most of the time she seems to feel that she is on the inside of things, and thoroughly enjoys being with her classmates; but occasionally she criticizes the social atmosphere: "I don't like the kids--they're phoney. They give in to status--feel they've made it." "I don't like the cliques--you shouldn't be judged by what you wear, or how you look."

She enjoys courses that she does well in--courses, that is, in which she feels "on the inside." Again, being in the group is important to her. "I get a lot out of school--contact with others' thoughts, teachers' experiences. I've learned to respect people. I think everyone should be included in class fun." "I like seeing the kids, and taking tests and finding you got a good mark rather than a bad one. I miss the kids if I don't see them--you can talk about problems, and find they have the same ones." "I like doing well on tests in science, because then I know I understand it." "When I go to a class-it's really great if it's not boring, and if the teacher's good, and if you're participating and understand it. It gives me a feeling of satisfaction to know I'm part of the class, and getting some enjoyment out of it." "You have the same problems in classes, and compare things you've been doing." Occasionally, when she feels "out", the classroom group causes her some difficulty: "The classes should be much smaller. I only talk in a small class. I get embarrassed because half the time I seem to be wrong. I can't talk in history--full of intelligent students--even though I'm full of things I'd like to say."

Her friendliness extends to the teachers: "I like to get to know other students, and teachers--it's fun to find out they're different after school." "The teachers are all really very nice ...Mr.--is a doll. You get to know the teachers better staying after school with them (in club activity)." She does not praise or criticize her teachers for their ability or inability to teach nearly as much as the suburban school boy (only once, above: "...if the teacher's good..."); they are seen, rather, as part of her social life. They are not a very large part of this social life, but to the extent that her teachers are important to her, it is in a social rather than an academic context.

Though she complains about regimentation ("I'd do away with rules like smoking--the kids would discipline themselves better. Half the fun is in breaking the rules."), she feels more strongly about having to take required subjects, differences between curriculum levels, and the pressure of marks and homework. "I'd do away with homework. There are so many pressures with homework--I'd rather be out with my friends doing something I enjoy." "Do away with the emphasis that goes on grades." "Forcing people to take courses they're not interested in, and forcing them to work. You don't enjoy it 'cause you have to. People are more likely to function better in the Summerhill system." "The curriculum levels...In Curriculum 2. they treat you like an idiot or something. You have to go real, real slow. There should be something between Curriculum 1. and 2., or else 2. shouldn't be as slow as it is."*

Though she feels some frustration in school ("The point of school is to get into college--I'm anxious to get out of here. I'd like to be able to study what I want to study. I waste time doing homework. School takes up all my time."); on the whole she seems much more complacent than the suburban school boy. Though she, like he, sometimes feels that her future is preordained: "It s hard to say (the point of being in school), because it's been drilled into me so many times. My mother started me off in kindergarten, and I've just gone ever since. My future has been plugged into me since I was little--I can hear my grandparents saying now, 'What college?'"--she seems to resent her lack of autonomy less. If she can't find a practical application for what she is learning in school, she is confident that the education she is receiving is, or will be, generally beneficial. Perhaps one reason she is less critical is that she seems less concerned than the suburban public school boy with training for a specific profession--interest in a particular future career is mentioned only once. She hopes her education will make her well-rounded, poised in the company of educated people, a good wife and mother, and aware of the world around her. With such comparatively broad goals, she can be more confident that she will benefit from whatever the school offers her. She does not anticipate the necessity of earning a living--she assumes she will marry.

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*The curriculum numbers 1 & 2 refer to college "tracks".

"School will help me get a job, and it can teach and help my children. It helps in everyday things, like reading and talking to other people." "Learning is important so we can progress. We're a new generation, and pretty soon we'll replace the older ones, and we must invent new things. It's important to know what past generations have done in doing new ones. Mankind can be improved." "I want to go to college. You do take something with you, whether academic, emotional, or psychological. You do retain something, whether a history date or a friendship." "You get exposed to different sides, problems, and kinds of people. A socializing agency--it helps. Without school, everyone would be in his own little shell." "I've learned stuff--not much, but some. I'd stay in, because later you would look back and say, 'Oh, what an idiot I was.' My children would be ashamed. If you got married you'd have a better chance of getting someone smarter if you stay in school." "When you're married it's being able to discuss things with husband, kids, boss, etc. General outlook on life--to know something about your husband's business. Being able to communicate--education is for communication." "To be educated in the world around us. I think if we live in one part of the world, we need to know about the rest. We need to know how to read, understand where we're here in science, what we are, why we're here."

"I think you just feel better if you know you're doing something about an education." "Despite pressures of grades and getting into schools, I feel more satisfied in getting back a paper with comments from which I can learn. I could feel accomplishment from understanding a book or something even though it wasn't graded. My concern is not disappointment, but that they (grades) don't reflect learning a lot." "I feel much happier knowing more--I feel like I'm growing--it feels very good."

Even though she may not feel she benefits from all her classes, she shows a certain reluctance to advocate change. "You can't say school is great, but we're here to learn, so accept it as it is. We really can't say, 'Forget math,' or try to change it, because we're here to learn, and that's it." "The most important and interesting thing about school is all the different things. If you don't like them, they're there for somebody else to enjoy."

On the whole, then, the suburban school girl sees school as offering her a great deal of pleasure in the form of social activity. Her pleasure is sometimes marred by what she feels is her obligation to do well and get good marks, but she is fairly confident that the education she is getting is important in fitting her for the future role she sees for herself in the community.

SCHOOL C

The Private School Boy

The private school boy is intensely involved in his own intellectual development. He enjoys his class work, and feels special satisfaction at being able to concentrate independently on those subjects which interest him most. Like the urban and suburban public school boys, he derives pleasure from contact with other students; but, unlike them, much of his interaction with friends revolves around discussions of academic matters or is thought of as a means to greater understanding of self and others. Social contact is not appreciated as a relief from academic routine so much as an important aspect of his total education. He feels that he can really get to know people, both students and teachers, and that the experience is valuable.

Generally, he thinks of the school as allowing him--in spite of high academic standards--a great deal of intellectual freedom, as well as supplying an atmosphere in which interpersonal intimacy can develop. He works hard, likes to achieve, and retains a sense of personal autonomy regarding his work. Even when he finds the work taxing or boring, he approves of the educational philosophy of the school.

"Physics class is the best, but I like all classes in general. My interest in learning has been brought out more and more here." "I enjoy the lack of stringent limits--they put each student on his own--he's allowed to go as far as he wants. There is compassion here. People are very good--concerned about the students here." "The comparative freedom here is the thing I like the most--it gives me more responsibility." "I'd like to write, be original. This is why I like English, creative writing. Otherwise, the books we read are interesting. I most like to do this-most satisfied when I'm doing it...my own work, not a problem placed in front of me." "It's school, so all of it is at a slightly lower level of value. Physics is a very interesting course. I like the ideas and especially the labs. Recess and chatting time I use to exchange ideas about school from some idea we discussed in classes." "I enjoy acting and the literary magazine. I'm on the staff and find it very enjoyable. You can also put the English class--really good--the teacher is excellent.

It's an unorganized, unstructured course focused on what the poets of the 18th century thought and felt about the 'Big Problems', and that's interesting." "I like the way the teachers don't push the devil out of you. If you're doing poorly and sitting in study period, they still don't push you to do the work. It's part of the atmosphere here." "Physics and math most intrigue me; I really get worked up and excited by that, but a close second would be the violin. I'm really anxious to get a chance to work on that more." "as far as the academic part is concerned, forget it. But regarding the approach to education--informal individual initiative--that can be worthwhile." "I like finding out for myself about different aspects of whatever I'm involved in at the time. Personal involvement like poetry, meter and rhyme. Pulling out a book, going through the rhythm and meter." "I like the kids the most. Classes are fun, but there's more to people--they have a lot to offer. Generally there aren't any in-groups or in-popular groups. You feel you can discuss things with others. It's easy to communicate, to discuss." "The people ...closer relationships to people, more equality. I've never felt equal or subordinate to people at school before, and I think I should have. I feel I can understand more about people here."

He finds imperfections in the freedom which he praises, however. He complains that it doesn't extend far enough, or its limits aren't clear enough, particularly concerning personal freedom. He also would like to make changes in the academic regulations and organization.

"I wouldn't have all the silly rules. Only those that are necessary--a few based on health, safety, and relations to the outside public. None of this stuff like lights out at ten. You can't be one minute late--as if anarchy is around the corner--chaos. I'd change the rules about dress--like having to have a jacket and tie--and saying that if you won't go along, then you're immature. The teaching--in general, it's all right, but some of the teachers need to be put away. The old decrepit ones need to be placed in a museum--like my dorm parent. Boy, you can have most of them, with their small minds."

"...it ruins the atmosphere for learning when we start off on another track of either trying to make people happy or suggesting codes for social behavior. It detracts from what I see as the main purpose of the place...Should spend more energy on getting people to think for themselves, and less on note book learning. Even though much of it is this way now, it could be more so.

"It isn't too strict here, but it gets pretty confused--we're told we have control, but it isn't really the case. It's more of a guided democracy than a democracy. The administration is still reserving many decisions for themselves--it would be better to clarify, and say, 'These are the rules--period. These are left up to you.' Then we could be more free to think."

"(We need) a more liberal headmaster. Some aspects he spends a lot of time on--petty things seem to occupy much of his time. Maybe I mean by 'liberal', more open-minded. He spends a lot of time on minor issues--petty things like haircuts--and this lowers morale. The things that he puts so much weight on aren't really that important, so it just irritates."

"I would do away with grades, like 9th, 10th, etc. It's senseless to separate people in this way" it destroys feelings of equality, makes people envious."

"I would eliminate teachers. I think I could learn more if I were put on my own. I could, at least, learn as much as I know in some courses, and more in others. I'd have the older students tutor the younger and have the older students conduct most of their own classes, and have college people available as resource people to the older students.

"I'd avoid the split between teachers and students, age differences, different sets of interests outside of school. Also, I've found that people learn things better when they themselves have to do the teaching--that's when you really learn, by explaining it to others--it's more active than just sitting on the receiving end."

The private school boy is the first student we have seen so far who often thinks of school as a convenience rather than a necessity. He could learn on his own, he thinks, but progress would be slower, he might have problems with self-discipline, and he would miss contact with others' ideas. Sometimes, he--like the suburban school boy--feels that he is on an assembly line of elementary school-high-school-college-job; one which he resents at times because he does not accept the values of the end product as fully as the suburban school boy seems to. Quite unlike the urban boy, who thinks that the ideals of the educational enterprise are good, but that his own school isn't exemplifying these ideals very well; the private school boy tends to question the ideals rather than his own school.

He does not mention that an important purpose of his being in school is college preparation as often as we might expect. It may be that he simply assumes that he will go to college, and that it is not of immediate concern. He certainly does not feel the pressure to make a living that the urban school boy does, or even the suburban school boy, and may hope to experiment with other alternatives. Though he does mention preparation for college and jobs as important functions of the school, he tends to be more present than future-oriented than any student so far.

"The point of school is to better oneself--to learn about what's around you, a basic knowledge. It isn't essential that this be done in school, but otherwise it would take an awful lot of self-discipline; it's probably easier to gain knowledge in school." "School is where you mature. It would take so long if you weren't in school." School is an organizer--puts you together with things. Gives you association with teachers, with kids who have the same types of concerns." "This school helps teenagers find their identity. At public school, they're just masses; they all dress exactly alike, they have the same haircut, and all look alike."

"Not to make more money. Not just staying in school--it's what you're learning. I don't know if I have the self-discipline to do it on my own, and also need the contacts with people. I don't know what it would be like without formal education. I tend to think I'd waste my time."

"The school has the responsibility to acquaint the individual with the nature of institutions and of mankind. Institutions often prevent this--instill their prejudices. They expose an individual to an idea, but to instill absolutely is wrong. Schools fall in this category; schools want to insure ideas, or that things will be run in certain ways. They steer people...There's a fine line between exposing an individual to an idea and brainwashing him...Institutions are like walls--they protect themselves and make themselves stronger by launching an assault on others...The walls should slowly be removed...It's an ideal, about the only ideal I have. I don't like to look at life as a bunch of games--college, army games. Society makes them. If they're there, I'll play and win, but I wish I didn't have to."

"That's what life is--learning. You're a giant brain, just working, caught in a rut doing nothing except help the whole thing."

The private school boy is interested in school, generally enjoys his classes and relationships with others. He fiercely guards his individuality, and feels that the school--for the most part--supports him in this. He thinks he is benefiting from his education, but sometimes feels bitter that neither the school nor the society allows him complete freedom.

The Private School Girl

Like the private school boy, the private school girl enjoys classes, discussions, and other aspects of the intellectual climate of the school. She, too, likes working and being with other people, both students and teachers. She is not as interested in individual achievement as the private school boy, nor is she as critical of her classes and required courses. On the whole, she seems more group-minded than the private school boy, preferring working with others to working by herself.

"I enjoy the exchange of ideas, discussions, getting to know people from other places." "I like the student-teacher relationship possible here." "I like classes...Because having a teacher and having other people, especially in English with things you've not understood before, having help in pointing it out. This makes you see other things. Also, just having the facts and getting them down--it's satisfying to feel you really know something." "I like the literary magazine. All we do is sit around and criticize literature, which is lovely." "The teachers around here are about the best."

She likes dances, talent shows, and other extra-curricular activities more than the private school boy, though they are not as important to her as to the girls of the other two schools.

She is concerned with issues of freedom, but she is sharply divided about whether there should be more freedom, or if the problem is that students don't know how to handle the freedom they have. She is not as revolutionary as the private school boy. She says, on the other hand, 'The main thing I'd change is the feeling that you're constantly being watched. You're always aware that somebody has to know where you are. The school is run so much on a trust system, and I feel it's not really trust when somebody always has to know where you are." 'I'd do away with restrictions on hair and clothes." 'The headmaster wants you to be an individual, but makes conformity. He worries about the outside so much."

On the other hand, "The trouble with the school is that some kids seem to think it's a beatnik school. They wear long hair and beatnik clothes." "I'd do away with emotional people, because they cause all the trouble, and they don't think. When the headmaster tells us something that we can't do, a lot of people take the attitude that he's just mean. It immediately comes to their heads that they don't want to do it that way. They don't bother to think that he might have reasons for his actions.

People are very silly about rules." "some are not ready for the independence and freedom granted here."

She wants freedom, but she feels that it must be earned: "People come with the impression of what a liberal school it is.' 'Do just what you want'...But the school has gotten stricter because people do just what they want without seeing their responsibility. I'd do away with not only those people, but with those ideas, so the school would be freer and more independent-thinking."

She sometimes feels that there is too much academic pressure, and too much emphasis on grades. "There's too much pressure. Some kids just can't do it in four years--need five, and others could do it in three, but are held back because of their age. There's too much pressure when kids are quivering over a C versus a B-minus."

"The whole school system would have to change. I'd provide lots of variety in classes, and you'd have to go to the ones you choose, but I wouldn't require courses. I think you should be acquainted with most of them, but then there's the 3rd grade (for that). There's too much pressure, also. A whole attitude that has to be changed, a whole social attitude. Learning should be something that you love, and it isn't. People get so bored, or at least I did. Learning should be an adventure, but the child is humiliated if he doesn't know. Ignorance isn't a crime, but teachers have a punitive attitude toward it."

Even more than the private school boy, the private school girl is present-oriented. She thinks school will give her general preparation for life, but she likes school and is enjoying it now, and that is important to her. While the suburban school girl is preparing for marriage and community, and the urban school girl for a job; the private school girl is preparing for open-endedness. She just wants to be a cultivated person, at home with intellectuals. She, like the suburban school girl, does not feel that she must find a profession for herself: "...it's good to know things, no matter whether you ever do anything with them or not." "I suppose the main reason for school is just to prepare you for when you get older, your whole life. It would be of use if you have a career or job or whatever, and to get around the world."

She says" "I find enjoyment in learning things now. I'm planning for the future, but not living for the future." "It's just something you have to do--it's a drag not to learn anything. Because ignorance is a drag--people have something inborn in them that makes them want to discover or pioneer." "I could say it prepares me for life, but I don't really know if that's true. I like it, and I am getting something out of it. I like exchanging ideas with people, being with them, and certain classes I enjoy." "My parents aren't forcing me to be here, or in college. I want to." "Being at this school, and on my own, is important to me. I'm not just working for grades. College is going to enter into it sooner or later, and that's too bad, because it ruins half of it. Puts on that extra bit of pressure." "My family has intellectual interests--friends of my father are very intellectual. I want to communicate with intellectual people. I like reading and poetry, and want to learn about that. I want to speak other languages, for traveling." "Education affects so much. School exercises your mind, helps you decide what you want, alters character, makes possible actualization of potential."

The private school girl enjoys school finds it interesting and stimulating. She tends to conform to the school community with less strain than the private school boy, and is sure that school will equip her to live her life any way she wishes. If she has not yet decided on her goals in life, she feels there is ample time and opportunity ahead of her to do so.

SUMMARY: In this chapter we have present a quantitative summary of student responses gathered through an open-ended interview procedure. In addition, we have presented a qualitative and somewhat subjective picture, drawn from the students' phrases, of how these attitudes vary both by school and to some extent by sex. The differences especially across the three schools once again appear as differentiating and significant. The composites of the boys and girls in each of the three schools were used to illustrate the content of these differences.

4

Chapter VII

STUDENT DECISION-MAKING

Lillian B. Dinklage

Introduction

The central, pressing research problem that emerged from an extensive review of the research literature on decision-making was the need to study the process that adolescents actually manifest when confronted with decisions. The major objective of this segment of the research was to identify, describe, and then classify the different processes that the pupils use in making decisions.* Instead of attempting to teach adolescents how to make decisions or to involve them in simulated decision procedures, we choose an approach that ostensibly would indicate how the pupils in the three schools critically go about the process. Through an interview procedure, to be described in the next section, we sought to develop naturalistic examples that would indicate both the content of the decisions and the array of strategy employed. The currently overused phrase of "tell it like it is" represents the direction of the research procedures. We attempted to develop an opportunity for the pupils to tell us, in fact, "like it is" in making decisions. Because the pupils from the three schools had demonstrated widely different backgrounds, we were especially interested in determining whether or not the pupils would show divergence in their approaches to decisions.

Interview Procedures

A semi-structured individual interview was the major method for gathering information about the students' decision-making. The main objective of the interview was to stimulate the pupil to discuss at some length the decision he considers most important in each of three areas of his life: educational, vocational, and personal. The student was encouraged to cite specific decisions he was in the process of making, and to discuss his thoughts and approaches to these decisions. He was asked, if he did not volunteer the information, about the significant others involved in his decisions, their views, and his own reactions to their views. His use of resources, specificity and extent of his planning were explored. Further, his emotional reaction to his particular situation was probed. Probes were tailored to the individual's responses where these seemed unclear or ambiguous. A copy of the interview outline is included in Appendix A of this paper. While the goal of the interview was one most important decision in each of three areas for each subject this goal was not met for every student. This factor is a result of the difficulty, or reluctance some students had in presenting their decisions, or the absence of any decision the subject considered meaningful in one or more areas.

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*An extensive review of theory and research in decision-making can be found in Adolescent Choice and Decision Making, L. B. Dinklage, Monograph 2A, Studies of Adolescents in Secondary Schools. Publications Office, Longfellow Hall, H.G.S.E.

Each of our interviewers was a well-trained professional educator who has taught and/or counseled adolescents in schools or institutions of higher learning. The interviewing staff consisted of three males and three females, two of whom are professors and four of whom are advanced graduate students.

The Decision Strategies

After all the interviews had been completed, the writer derived a series of different types of decision-strategies from reading a random selection of the protocols. Eight strategies seemed to represent the variety of approaches that the pupils actually used in responding to the interviewers. The writer then developed a rating guide before submitting the interview protocols for an independent reliability check.

For rating purposes the strategies were labelled from "A" to "H." A descriptive write-up and examples of each strategy were developed to provide judges with a basis for their selection of strategies. For discussion purposes here "names" will be added.

Strategy A - Impulsive. This strategy described a decision process based on impulse or being resolved by the decider taking the first alternative that presented itself. The student, in discussing the decision, gave a leaping Lena impression. Two brief excerpts illustrating this approach are given here.

> All this talk is just so much talk. We don't really do much thinking about making decisions and choices...you wait till the time comes then you decide, well not really decide, you just act.
>
> The choice just seems to be physical--I don't have to decide I just do it.

Below is a protocol from one girl who was rated as using impulsive approaches to both of her decisions.

Illustration A

Decision 1: Impulsive strategy

Oh I know! If my future is going to depend on what I want or what I'll have to do--not what my parents say but what I'll have to do to support myself. (Tell me more.) I think right now I might like to go into dramatics but there you can't really depend on supporting yourself, but if you pick something safer, that you know you'll be able to get a job in, then that would be better.
(Better?) I don't know if getting money to support myself matters. It all comes down to a question of what's going to make me happy. (Q for more.) I think you have to have some kind of future and dramatics is nothing to depend upon. (Q) There has to be some kind of a goal. (To work toward) Well, I don't know. (Q what would make her happy?) I don't know, I may never know. (Q re dramatics interest?) I like acting. I haven't done much--little things like skits--do scenery and make-up for production. (Q re other things considered?) No. I don't know. Dramatics is what I'd like to do but I can't do it--that's the way I look at it. (Q how she thinks things might work out?) There are a lot of things that can make you happy. It was to be something that will make me happy and be worthwhile. (Q) Actually it doesn't matter to me. I'm just going to do whatever I want to do--whatever I feel is right at the time.

Decision 2 (same subject): Impulsive strategy,

(Q re educ. decision). Oh, I can tell you something. When we have AA time, sports, I got Mr. X to sign that I could board my horse down the street and ride her.(Q again for educational decision?) Well, I dropped Latin. Why did I drop it? Because it was boring and I wanted to take ethics more. Latin wasn't as interesting. I'd already had Latin for 2 years. (Q re interest in ethics.) I don't know what I knew about it. I just wanted to learn something new. (Q did you talk to anybody?) No, knew teacher was a good teacher. Thought subject might be interesting though I knew nothing about it. (Did you have to consult anyone to change?) I had to talk to my advisor and the teachers of both courses. (Q their comments?) Latin teacher didn't want me to change because I'm good in Latin.

Decision 3 (same subject): Comment

(Q for personal decisions?) I don't make decisions, I just do it. The only time I would make a decision is if someone was against something and gave me good reasons and then I would have to decide what I was going to do.

(Q re bringing horse to campus). No problem in it.

Strategy B - Fatalistic. The second strategy type leaves resolution of the decision up to the environment or fate. It represents a fatalistic Freddy type who believes "It's all in the cards so why bother!" The following excerpts illustrate this type.

> I'm just going along with what comes--I'm not making any efforts to change things.
>
> Only one thing to do--do your best and let the pieces fall where they may--you do it and everything will fall into place--you can't do anything else really.

Below are two decisions from different male subjects which were rated as utilizing a fatalistic approach.

Illustration B

Decision 2: Fatalistic or environmental strategy;

> I've been thinking about it (vocation), but I haven't really decided on anything. My father works at a hotel and I worked there last summer, but I didn't like it very much. (Are you planning any school after high school?) I doubt it. I don't think I'm that smart. I did think of technical schools, because I'm interested in electricity. (Have you investigated them?) No, I haven't.
>
> (How make decision?) Well, pay is important, working conditions. (Talk with parents?) Yeah, what they say is important. They'd like me to go into hotel business, but they'd let me go to electronics school, or something like that. Unless I get to know someone or get a break in an electronics company, I'll probably end up in the hotel business.
>
> (You feel it's pretty important to know someone?) Yeah, I think so. You need someone to give you a break. (Like your father in the hotel business?) Yeah--it's important to have a break when you start in with a job.

Decision 1 (different subject): Fatalistic or environmental strategy

> (Q most important decision.) If I can't get my grades up for the second quarter then I might go into the Navy or else go out on my own. (Q) Most difficult to choose to stay in school or go into Navy. If I go in the Navy I could take up electronics, I'm supposed to be mechanically inclined, at least that's what I'm told. I've no intention of going to college. (Q) There's more opportunity in the Navy for what I want. Also, I like to travel.

(Q) I'm in a general course now. If I don't make it in school, then I'd go into the service and they provide schooling in the things I like. You don't have to take English, history, and so on.

(Q) I've talked to the recruiter. It's hard to get into the Reserve without a diploma, but I can get into the Navy now, got the papers signed. (Q parents' consent.) I can go in now or I can still wait even if there is an opening depending on whether I want to go in or not. (Q) I haven't really talked to anyone about this. I've looked around and figured it out. (Q How handle parents?) I've persuaded them--I won't get shot at. At first they wouldn't go along and once in a while now they say, "stay in school." But, as soon as I turn 17 1/2 I can do what I want anyway, so they said they'd sign.

Strategy C - Compliant. This strategy covers a decision approach where the decider is going along with the plans of someone else for him, rather than making his own decision. It denotes a compliant Connie who figuratively exclaims, "I'll do whatever you say, Sir!" Sample excerpts follow.

My decisions are sorta made to me by my parents so if I want to do something it's determined by what they want....In school usually my decisions are made by my teachers.

I'll follow the example of a friend.

I don't know yet if I'll drop my curriculum level in Spanish. I have to see the teacher today--if he tells me to switch I think I will--although I hate to give it up.

A decision rated as Strategy C is presented here.

Illustration C

Decision 3: Compliant strategy

(Q personal decision). My mother does not want me dating boys of another religion but I thought maybe I would anyways. (Did that settle it?) Recently I've only had one chance. I explained the situation to the boy that if my mother found out I wouldn't be able to see him. (Q what then?) I didn't see him after that. There's another boy I was seeing, she didn't like so I went out with him 'til she found out. And that was the end of that. (Did you sneak out before she found out?) Yes. (Q what happened after?) I couldn't see him any more at all. (Did she check on you?) Yes. (Do you feel your parents give you room to make your own decisions?) Not really. (Q would you

> like more room?) Yes, at times. (Q meaning.) Sometimes it seems better they've made the decisions for me. Other times it seems it would be better if I did.

Strategy D - Delaying. When the student had actually decided to take a moratorium on his decision and delay more thought and action on it until a later time, Strategy D was assigned. This is a delaying Dennis type who decides "I'll cross that bridge when I come to it." Sample excerpt:

> It's early to really get concerned about it (college major)--after I get there I can decide what I'd specialize in.

A decision about his career from a student who clearly states this approach is presented below.

Illustration D

Decision 2: Delaying strategy

> During his discussion of choosing a college, this young man mentioned, "I lean to history and humanities as possible majors more than science, so I look at college in terms of the departments that they have and the program offered." Later he added, "The subjects that I'm most interested in are history and government. I read the newspapers when I was little and always found myself reading material, background stuff, and so on. So, it's just kind of natural for me to follow up on them.
>
> (Q Have you done much thinking about a career or vocation?) It's pretty vague at present--possibly government or history. It's so general that I would doubt that it has much to do with the future. (Q) I have a goal but it's undefined. (Q meaning.) With more education and going to college then I'll be able to decide, to use college and what it offers as a time for me to begin to focus on what I might do after--'cause it's really too early to make that kind of a decision now. You know when you're real small you might have one thing in mind, but it's not realistic. So, it's much better to take things one step at a time. And that's what I plan to do!

Strategy E - Agonizing. This strategy classifies those decisions where the students spend much time and thought in gathering data and analyzing alternatives only to get lost amidst the data they have accumulated. They usually see no way or means, even tentatively toward resolving their decision dilemma. This type of agonizing Agnes frequently, states with pain and consternation, "I don't know what to do."

This strategy is difficult to illustrate with one neat phrase. The student has usually given time and thought to his decision issue indicating that he is cognitively dealing with his situation but that he is still unable to reach any conclusions or real directions.

Following are two decisions from different students. Both decisions were judged to be using an agonizing approach.

Illustration E

Decision 3: Agonizing strategy

> (Q personal decision.) A choice recently over whether I would buy or rent an organ for the band I was now [sic] forming. If I bought it, could I resell later? Would it conflict with school work? I need a portable in order to go around with the group. I can use the organ at home for practice. I've not yet decided whether to buy or rent, renting costs $20 per month. Have to decide in a week. Maybe I'll not bother since one of the group will quit in January.
>
> Probably it would be better if I got into an established band. We're really not ready to play yet. And with us losing one of the members, it might take a long time to get rolling.
>
> I discussed this with the other members. They want me to spend the money so it will help them out. There's a difference in sound and a need to move more easily, and so on. But I'm reticent to commit the money if the group may fall apart. The group needs more work to be ready. I just don't know what to do!

Decision 3 (different subject): Agonizing strategy

> (Q personal decision.) Philosophy and psychology interest me. Especially philosophy--the struggle to understand existence is a concern to me right now. (Q) Understand why there is a desire to find meaning or to understand one's self better.
>
> (Q How going about it?) Doing a lot of reading--and through personal acquaintances, talking with people. I find it difficult to understand. I seem to have goals in vocations as a security measure only--and I'm not sure that that is enough. I know it isn't enough. So what else is there? The vocation might help you aim and gain in purposefulness-but I'm not sure how it all fits together--where Man is? At present it's very vague--I almost refrain from seeking an answer--certain ideas are prominent; like the view of existentialists seem to make the most sense--but I don't see the answers in that view of the search. And I can't label myself as an existentialist but they all seem to interest me.

(Q) Most of this has come up in the last three years--and it's a pretty big part of myself and my life. These questions are with me all the time. I can examine the questions but the struggle is that I'm not moving to any conclusions. I don't seem to remember what started it off. It just seemed to occur. It doesn't seem that I can settle down until I have a better understanding of what it's all about.

Interviewer's Note: "At the end of the interview I asked if he had any questions. He smiled somewhat self-consciously and asked me how I had worked it all out--You know how do you justify your existence?!"

Strategy F - Planning. A planning orientation as a basic mode for approaching decisions and the making of them is Strategy F. This method is usually a rational approach with some balance between the cognitive and emotional life. The strategy is essentially a planning one in which the student has some method(s) or alternatives formulated or being formulated in some detail for making or carrying out his decision. Planning Percival is designing his decision so that the end result is satisfactory to him.

Excerpts from decisions using this approach are given here.

> You make a temporary decision and think of things you might like. Then you choose a course directed to that but you have a reserve to fall back on.
>
> I want to be a nurse or secretary. I'm now taking chemistry and business courses so I can decide later which. I'll work for a while after high school to get money and will take post grad courses to brush up before taking extra training.
>
> I switched from the college to the business course because I knew I couldn't afford college without a scholarship. The high school was so hard my grades weren't good enough for a scholarship so I decided to switch to business to get training for after high school.

Illustration F

Decision 2: Planning strategy

> This girl's first decision was on selecting a college--a well-planned thought-out approach to college selection with several colleges mentioned as possibilities. She was planning a trip this summer to better compare them in terms of her own needs. The colleges she was considering are all strong in veterinary medicine which she had declared flatly she was going to enter as a profession. The judges rated her first decision as a planning orientation (Strategy F).

> (Q. Tell me how you decided to become a veterinarian? I like animals. I'm interested in medicine and helping animals. I've had them ever since I was little and it just seems like an exciting career. Also, it's a challenge because so few women become veterinarians, especially with larger animals. (Q work with larger animals?) I'm not sure yet but when I get on to veterinarian college, I'm sure I'll be able to decide. Right now I'm not interested really in the larger animals although I have thought about practicing as a veterinarian for a zoo. This summer I have an opportunity to work in the ________ zoo, so I should have some better idea then. I will take my college trip for 2 or 3 weeks then work for the rest of the summer. I just sent in my application for the ______________ zoo but I know I have a good chance of getting it. If not that then I always have my job with (a business firm) where I work on Saturdays now. (The zoo job was discussed at some length and in great detail, illustrating this S's awareness of the components entering into a summer job at the zoo and rather extensive information about the work of a veterinarian.)
>
> (Have you considered anything else?) I've thought about it whether or not I've considered it. I always wanted to be a vet--since I was 7 or 8. I'm pretty certain and don't think I'll change. I thought about other things but always come back to vet as preferred over them. Most of my other choices have been in the medical field anyway. (In deciding to become a vet was there specifically any more than your love of animals and interest in medicine?) Isn't that enough?! (Both laughing--Okay, that's enough.)

Strategy G - Intuitive. Strategy G is basically an intuitive approach to decision-making which is somewhat mystical, somewhat preconscious in the student. It often bespeaks some internal organization in the student which he senses but can't verbalize. Irving Inner Harmony is not quite sure how a particular decision is made but this type is comfortable with the decision because "it feels right" to him.

Excerpts from student protocols include the following relevant comments.

> It's going on in the back of my mind. I've looked over the college catalogues--the information percolates in the back of my mind. I don't actually think about it--I make decisions frequently when I'm sleeping.
>
> You just feel it would be right. By intuition you know--you know intuitively what to do.

One young man had two of his three decisions rated as using intuitive strategies. Both decisions are presented below in illustration of this approach.

Illustration G

Decisions 1 and 3: Intuitive strategy

Dealing with colleges--where I want to go--what I want to do at college--the whole problem. (How are you going about it?) First thing I have to do is see how I do on my SAT's, college boards, and marks. These set realistic limits on what I can consider. My interest tends toward science. I think of college primarily as preparation for a profession, so I'd like to go to schools with a good science department--but I also want college as a broadening, intellectual experience, so I want more than just a technical institution. (What are you doing?) I'm reading college catalogues. I talk to teachers and friends about colleges. I've visited colleges. I'm going about this in a leisurely way.

(Have you talked with your parents?) They have no strong feelings--they would accept any choice I made. (Even if you decided no college?) Yes, I think so--they might not be too happy about it but they'd let me make the decision. (How about your friends?) They're not very helpful. Their perceptions of college are different from mine. I seem to have a deeper feeling for college than they. They just seem to look at superficial aspects.

(How will your decision be made?) Well, I'll continue to investigate all of them: go to interviews, ask questions, and so on. I couldn't force a decision. I have to let the whole process operate from within me. I don't think the process will be a rational one. I think that, gradually, I'll just start tending toward one over the others. I think it's important not to force a formal, deliberate decision. It's too important a decision, one that is an essential part of a person's life--it has to come from within.

Interviewer's Note: "Qualifies at end that this was not the "most important" problem on his mine--just that he thought this one was manageable. He starts talking about "most important" one under "Personal."

(What about a "personal" decision?) It's just about the biggest question a person has to resolve: what he wants to do or be. It's a pretty constant, all-encompassing thing. My thoughts just tend to come together on this--it's hard to differentiate between the different ideas. (No guiding principles?) There are two things that are important to me in thinking about what I want to be: 1) There has to be an opportunity for doing new or creative things and 2) It has to be consistent with my own ethical or moral ideas. I can't picture myself engaged in the same old routine day-after-day and I certainly could never do things which are unethical.

(Elaborate on problem?) I see high school as a chance for people to find out for themselves who and what they are, what they want to do, what they value the most. That's what I'm in the process of trying to do--and I have very little to guide me, except for the two general considerations I just mentioned.

> (Anyone to help?) Like the first problem we discussed, this is primarily a personal consideration. It's no decision that you sit down some afternoon and just make. Your whole self is involved with it. Other people can play a part by contributing ideas or giving some new perspective--but then you have to evaluate these things, judge them for yourself, and then let them toss around inside of you--whatever decision (if there is such a thing) just has to gradually flow or develop out of all of this. I haven't reached this final stage yet.

Strategy H - Paralysis. The last strategy classifies a decision situation in which the student accepts the responsibility for his decision but is unable to do much toward approaching it. Paula Paralysis cannot really plan or work on the decision herself, nor can she decide to delay it. She worries about making the decision without gathering information, formulating alternatives and so on. This strategy is often accompanied by a "depressive" tone in the student.

As with the Agonizer, there is no short phrase or guide that captures the flavor of this strategy. Rather, it is the impact of the student's total discussion of the decision situation, as in the example below.

Illustration H

Decision 1: Paralytic strategy

> Interviewer's Note: "Most of interview in tears--girl feels very, very hopeless about everything. She has failed [her grade] two times, has no friends, failing everything."
>
> Whether I really want to finish school or not. Most of the teachers yell all the time and holler at you. They tell you to come back for help after school but they are so mean--no one goes back. When I answer wrong in school everyone starts to make fun of me. (Have you talked with anyone about this?) No--(How are you going about trying to decide?) I don't know what to decide. (How do you think your parents will feel?) They want us to finish school--so that is an influence. (Have you talked with anyone else?) I was supposed to graduate but was left back. I'm not going to pass this time either. I'm very unhappy in school. (Can you tell me more?) No.

B. Interview Rating

Two judges unfamiliar with the study were selected along with this writer to rate the interview protocols. All three judges were advanced graduate students who had experience and training in psychological work with students and parents in school and clinic settings. In a preliminary rating of the first decision from each of 46 protocols, percentage of agreement ranged from 55 to 62 percent for the seven decision strategies. Using a one-tailed "t" test, all percentages of rater agreement are significant at the .01 level.

After the preliminary rating, a three hour joint meeting of the raters was held. During this meeting strategy category "H" was derived. Several categories were clarified and some additional specific definitions were incorporated in the manual.

Actual rating judgments were made independently by each rater without consultation with the other raters. The raters worked from handwritten protocols which are rather complete transcriptions of the students' discussions. The students, naturally, did not always present their decisions in discrete and ordered sequence. The raters, at times, were required to make judgments about the type of decision the student was making and the information relevant to it. Also, the students would often have traces of two or more strategies in the discussion of a single decision. Where this occurred the rater carefully judged which strategy seemed to be the basic mode the student was using in handling his decision around the time of being interviewed.

For actual rating, Rater I judged two-thirds of the interviews equally distributed by school, sex, and interviewer. Rater II judged one-third of all protocols in a similar distribution. Rater III rated all of the protocols.

C. Rater Reliability

A binary classification of agree-disagree was used for computing inter-rater reliability figures. The comparisons and results of this part of the study are presented in Table VII-1.

TABLE VII-1

RATER AGREEMENT

Raters	No. of Decisions	Strategy	
		Agrees	%*
I + III	314	255	81.2
I + II	152	99	65.1
II + III	157	115	73.2

*Using a one-tailed "t" test all percentages of agreement are significant beyond the .001 probability level.

Table VII-1 indicates that the inter-rater agreement ranges from 65 to 81 percent on the use of the eight decision strategy categories. As footnoted in the table, applying a one-tailed "t" test to each percent of agreement for its particular scale, every comparison of percent of agreement between raters is highly significant beyond the .001 probability level.

Since the agreement among the three raters was relatively consistent across the general areas of Strategies and since the probability level is beyond .001, the scoring procedure can be considered reliable. However, from these data by themselves we still do not know whether the raters used all the categories in the classification scheme. In order to demonstrate category use, Table VII-2 presents, by rater, the use of the eight strategy categories. Since the number of decisions judged by each rater is different, use is recorded in percentages to one decimal place for comparison purposes. This table demonstrates that all classification categories were used by each rater and in rather similar proportions. Since Rater III rated all the decisions, it was decided to use these as the basis for the subsequent comparisons and analyses.

TABLE VII-2

PERCENTAGE USE OF STRATEGY AND PLAN STYLE CATEGORIES

	N Subjects	N Decisions	Strategy							
			A	B	C	D	E	F	G	H
Rater I	122	314	14.4	03.8	13.4	08.9	04.2	44.4	06.4	04.5
Rater II	61	162	04.9	11.7	18.5	17.3	08.6	35.2	03.1	00.6
Rater III	184	495	16.6	10.3	17.6	11.3	06.6	27.5	05.5	05.2

Decision Types

Since the interviewers had asked the pupils to present examples of their decision-making in the three general areas of educational, vocational, and personal categories, we now turn to an examination of the distribution of such decisions.

Table VII-3 records the distribution of type by subgroup. A brief glance at Table VII-3 shows very little difference between the sexes and sub-groups on the number of students discussing educational and vocational decisions. However, the personal decision type produces some divergence in the groups. First, it will be noted that only 75% of the total sample produced decisions in the personal areas as contrasted with the 93% reporting educational and 85% discussing vocational decisions. In the personal area, 86% of the girls interviewed gave at least one personal decision while only 63% of the boys responded with decisions classifiable as personal. More specifically, the boys in School A (urban) and School C (private) particularly did not discuss their personal decisions. Only 52% of the boys in the private school and 57% of the boys in the urban school presented "personal" decisions to their interviewers. Part of the absence of "personal" decisions for the boys in School C is a result of the classification system used. School C boys often gave third decisions which the interviewers accepted as "personal" but which the raters classified as "educational." (e.g., a decision to attend private school.) However, the interviewers consistently reported difficulty in getting personal decisions from the boys during the interviewing process. Very little similar difficulty was reported by the girls' interviewers.

TABLE VII-3

DISTRIBUTION OF TYPE OF DECISION

School	Sex	Vocational	Educational*		Personal*		Total
		S	S	D	S	D	N
A	M	24	27	30	16	16	28
	F	26	26	27	25	27	30
Total		50	53	57	41	43	58
B	M	28	28	30	23	24	29
	F	27	28	28	28	31	30
Total		55	56	58	51	55	59
C	M	23	26	35	15	16	29
	F	28	36	42	31	33	38
Total		51	62	77	46	49	67
All	M	75	81	95	54	56	86
	F	81	90	97	84	91	98
Total		156	171	192	138	147	184

*For the educational and personal decisions, some students gave more than one decision classifiable under that type. Consequently these two types have two columns each. "S" represents the number of students responding to the type and "D" stands for the total number of decisions of that type.

It has often been mentioned that by the demands of our society, boys become more task oriented and express affect less easily than girls. Observation holds that men in general are more reluctant or resistant to discussing personal and intrapersonal concerns, while women find it relatively easy to verbalize emotion, affect, and so on. It seems probable that these general speculations and observations account in part for the difficulty the adolescent males in this sample had in producing and discussing personal decisions. It is also possible that girls with their earlier maturation are further along developmentally and consequently less concerned or inhibited about self-examination and self-revelation. This too may account in some small way for the sex difference noted here in the presentation of personal decisions.

Most Important Decisions

When asked to report the most important decision they were confronting, 59% of the student-subjects listed educational decisions first, as can be seen in Table VII-4. Twenty-eight percent felt that vocational choice was the most important for them and 13% listed a personal decision. Among the sub-groups, the rating of educational decisions as "most important" holds up with at least 50% of each subgroup giving it first.

In the urban school (A) almost as many students ranked vocational decisions "most important." For almost half of the population, vocational concerns were more important than educational decisions. The importance of vocational decisions did not hold up proportionately for the other two schools. In School B, the suburban one, less than half the number ranking an educational decision as most important rated vocational decisions similarly. In the private school, a shift to personal decisions as the second "most important" type can be seen. In fact, over one-quarter of the students in the private school ranked personal decisions as the most important ones. It was in school C where the least percentage (52%) of boys gave any personal decision. But of the 15 boys reporting a personal decision, 7 or almost 50%, ranked their personal decision first.

TABLE VII-4

DECISIONS DENOTED AS MOST IMPORTANT

School	Sex	Vocational	Educational	Personal	Total N
A	M	11	17	0	28
	F	14	15	1	30
Total		25	32	1	58
B	M	8	17	4	29
	F	8	20	2	30
Total		16	37	6	59
C	M	6	16	7	29
	F	4	24	10	38
Total		10	40	17	67
All	M	24	50	11	86
	F	27	59	13	98
Total		51	109	24	184

The importance of vocational decisions for the urban school students is not surprising. It will be remembered that about twenty percent of this school's population go to college and a large part of the other eighty percent go directly into jobs. Within our sample from this school less than one-third of the boys and one-sixth of the girls (5 out of 30) are in a college preparatory program. Fifty-seven percent of the boys (16 out of 28) are enrolled in a general curriculum program designed to meet the minimum state requirements for high school graduation, while 77% of the girls (23 out of 30) are in a business program. Indeed, many of the educational decisions from the urban students centered around course or curriculum planning in relation to post high school work.

In reference to decision-based guidance programs, we have previously mentioned the importance of confronting adolescents on decision levels relevant to their present reality and interests. For the suburban and private school students, programs oriented around courses and curricula in preparation for college and selection of a college to attend would seem to meet their present reality. However for the urban students, this type of program appears largely inappropriate. The majority of these students are making decisions about work and cannot delay vocational choice in a manner similar to their suburban and private school counterparts. As mentioned, even their educational decisions are vocationally directed. Therefore, for school populations where expected college attendance is low, a different need on the part of the students demands that a different program for decision-training be instituted.

A closer look at the content of the decisions in the following section may help clarify some of the differences in educational, vocational, and personal decisions mentioned here.

Content of the Reported Decisions

A. Vocational Decisions

For a study of the content, the vocational decisions were broken down into four groups. The first was a general consideration of a career, profession, or vocation where the student saw several possibilities or held an open-ended outlook toward his prospects or was undecided as to the nature of the occupation he wants. The second classification was a designation by the student of only one or two specific vocations he had in mind for himself. Summer jobs were a third concern the students discussed as vocational decisions. The fourth group of vocational decisions centered around decisions about part-time jobs: to acquire one, to quit working, or to change one. Only nine students out of the 156 subjects discussing vocational decisions mentioned one of these last two categories. Of those nine, six came from school A, five girls and one boy.

A breakdown by school and sex reveals very little difference between the groups in regard to consideration of general or specific vocational choices. A notable exception is the suburban school (B) where more than twice as many girls are considering specific occupational choices than are looking at vocational choice generally. The consideration of one or two specific careers is a slight, although non-significant trend in all schools.

TABLE VII-5

CONTENT OF VOCATIONAL DECISIONS

Vocational Decision	School A		School B		School C	
	M	F	M	F	M	F
General	11	9	12	8	11	12
Specific	12	12	16	18	11	15

B. Educational Decisions

The 192 educational decisions were broken into six units. The first three of these were oriented toward future educational concerns.

For some students, a decision of whether or not to go to college or business school after high school was a real choice. Other students were concerned with the selection of a college or business school for continuing their education. The third unit comprises that group of decisions dealing with post high school plans for training, experience and education where consideration is general and not limited to college or business school choice and selection. In this group, concerns were general and frequently were presented together with considerations of armed forces service, taking a year off, and so on. The last 3 of the 6 educational units are more concerned with the student's secondary school experience: his present high school educational situation rather than his future education. One group is comprised of decisions around the selection or change of curriculum level or courses, or the repetition of a particular course. Continuity of secondary education was another group including such decisions as dropping out, staying in or returning to school, changing schools, repeating a year, or taking a year off. The last of the six educational units centers around the allocation and use of time and efforts for educational pursuits. Decisions to study harder or study counterpoised against other activities (social, extra-curricular, or work) were included in this last group.

A breakdown of the educational decisions is given in Table VII-6. A few students produced more than one educational decision. Upon breaking the general educational type into six content units, no student appeared in any content unit more than once. Consequently, one can begin to talk of numbers of students with decision concerns in a content area instead of numbers of decisions.

From this breakdown, Schools B and C distinguish themselves from School A in their distinct concern over the selection of a college or school to attend following high school. Over one-third of the boys and half of the girls in both schools cited this choice as a decision they were currently making. This finding, of course, is not surprising given the background history of college attendance in the three schools. The boys in School A begin to approach a similar concern. One-third of these urban boys are struggling with decisions as to how they are going to accomplish post high school training and experience. Many of them are looking to the service as a possible means of continuing their education.

TABLE VII-6

CONTENT OF EDUCATIONAL DECISIONS

Educational Decision	School A			School B			School C		
	M	F	Total	M	F	Total	M	F	Total
College or Not	3	4	7	3	1	4	3	3	6
College Choice	3	3	6	11	16	27	9	17	26
Post H.S. Plans	9	5	14	1	1	2	4	6	10
Curr. or Course	5	9	14	10	3	13	3	2	5
Continuity of Ed.	7	4	11	1	1	2	10	7	17
Use of Time	3	2	5	4	6	10	6	7	13
Total	30	27	57	30	28	58	35	42	77
N of Subjects	27	26	53	28	28	56	26	36	62

The girls in School A center their educational decisions around current curriculum and course selection and change. One-third of the urban girls produced decision discussions in this content area. In

School B, the boys show an equal concern with course and curriculum choice. The continuity of secondary education was a relatively nonexistent issue for the students from the suburban school as was decisions about more general consideration of post high school plans for training, experience, and education. Both of these content areas had some consideration in the other two schools and continuity of education was important for one-third of School A's boys, as mentioned. The continuity of education was mentioned by 38% of the boys in School C--a rather large number. Though there was a trend toward decisions about continuity in both Schools A and C, the specific nature of the content varied between the two schools. Boys in School A, by and large, were concerned with decisions about whether to finish high school. Boys in School C, on the other hand, were more concerned over whether to change schools or which secondary school to change to.

C. Personal Decisions

For purposes of looking at personal decisions, this type was first broken into thirteen content units. These thirteen units were then grouped into four areas descriptive of their content. The breakdown by area for personal decisions is given in Table VII-7. The first area deals with decisions about human relationships. This area is composed of units concerned with general peer relationships (10 decisions), dating (12 decisions), marriage (3), and parental relationships (20) where the student is concerned over how to handle parental rules and/or gain some freedom from their parents. The second area covers more ideological issues such as identity: Who am I? (10 decisions); moral, religious and value standards (10); draft status as a conscientious objector (4); and personal standards of behavior and dress (13). The next area is concerned with use of time and is derived from two sub-units:

summer and vacation plans (21) and free-time activities during the school year (21). The last area is concerned with acquisition and use of goods and privileges. In it, there are 5 decisions dealing with driver's licenses and 8 decisions about the acquisition and use of material goods and money.

TABLE VII-7

CONTENT OF PERSONAL DECISIONS

Personal Decisions	School A M	School A F	School A Total	School B M	School B F	School B Total	School C M	School C F	School C Total
Relationships	5	12	17	10	8	18	1	11	12
Ideologies	2	4	6	2	7	9	11	9	20
Free Time Use	3	5	8	7	11	18	4	11	15
Acquisition	5	3	8	3	3	6	0	1	1
N Decisions	15	24	39	22	29	51	16	32	48
N Subjects	15	23	38	22	28	50	15	31	46

There were six unique personal decisions spread across the sample which could not be classified under the above system. These six have been omitted from the figures that follow. Also deleted from this grouping are three decisions from girls giving multiple decisions where two decisions landed in the same content area. By doing this, no student appears in any content area more than once. This allows us again to be able to speak of numbers of students in content areas as well as numbers of decisions. The reader is reminded that only half the boys in Schools A and C discussed personal decisions during their interviews.

Looking at the personal decisions breakdown in Table VII-7 some interesting similarities and differences emerge among the sub-groups. Establishment of satisfactory relationships with peers of both sexes and achievement of independence from one's parents have long been held as important developmental tasks of adolescence. Both these tasks are subsumed under the area of Human Relationships. As can be noted, our subjects point toward this as a major personal concern. One half of the subjects in School A and 36% of the students in School B cite personal decisions in the area of human relationships. In School C it is only the girls who mention this category (11 out of 31 or slightly more than one-third). Only one boy of 15 in School C mentioned this content area. For these boys in the private school, intra-personal, ideological concerns rather than interpersonal relationships assume importance with 11 out of the 15 mentioning decisions in this area. Parenthetically, the area of identity and values, and ethics would have emerged as important for the boys in this school regardless of what the non-responding half of the sample might have discussed. The girls in Schools B anc C also begin to approach this issue of identity, values and ethics as a critical one.

The boys and girls in School B and the girls in School C frequently voiced decisions about their plans for vacations and use of free-time during the school year. Only one sub-group, the boys in School A, discussed decisions about acquisition and use of material goods to a frequency reaching importance for that group. For the students in School C, this area of decision-making was almost nonexistent.

Decision Strategies

A. Distribution of Strategies Based on All Decisions

The actual distribution by sub-group and strategy for all decisions

TABLE VII-8

DISTRIBUTION OF STRATEGIES BASED ON ALL DECISIONS

School	Sex	N	Strategy* A	B	C	D	E	F	G	H	N of Decisions
A	M	28	13	9	14	11	6	13	3	1	70
	F	30	23	6	16	4	4	20	1	6	80
	Total	58	36	15	30	15	10	33	4	7	150
B	M	29	12	13	14	8	4	25	4	2	82
	F	30	13	12	19	14	4	19	0	5	86
	Total	59	25	25	33	22	8	44	4	7	168
C	M	29	3	4	10	10	5	25	13	4	74
	F	38	19	7	15	9	7	34	5	7	103
	Total	67	22	11	25	19	12	59	18	11	177
Total	M	86	28	26	38	29	15	63	20	7	226
	F	98	55	25	50	27	15	73	6	18	269
	(All S's)	184	83	51	88	56	30	136	26	25	495

A*	B*	C*	D*	E*	F*	G*	H*
Decision based largely on impulse. Little thought or examination.	Decision largely left to fate or environmentally determined.	Decision made by complying to someone else's plans	A moratorium is taken on the decision. Thought & action are purposefully delayed.	Decision information and/or alternatives are overwhelming. Much agonizing over the decision.	Decision approached through a planning orientation.	Decision based on intuition and an "inner harmony."	Decision situation is accepted but maker is paralyzed in the face of it.

is presented in Table VII-8. The strategy most frequently utilized by both boys and girls is the planning one. About one-fourth of all decisions reported by the students were being handled by a planning strategy. Impulsive and compliant strategies were next utilized most frequently with seventeen to eighteen percent of the decisions falling in each of these two groups. About eleven percent of all the decisions fell in the delaying group and another ten percent in the fatalistic or environmentally-determined strategy category. Agonizing, intuitive, and paralytic approaches were each used five to six percent of the time.

Inspection of Table VII-8 indicates that there may be differences by sex in the use of the various strategies. Therefore, a Chi-square was computed to examine this question. With ndf of 7, the Chi-square was 25.54, $p < .001$. This means that the use of strategies was dependent on the sex of the subjects. By examining the distribution of strategies in Table VII-8, it is apparent that girls tend to display a heavy preference over the boys for use of the "impulsive" (A) and paralysis (H) categories. The boys use more frequently than the girls an intuitive (G) approach to decision-making. The boys also have a slight preference for delaying and fatalistic approaches.

Inspection further indicates potential differences in the use of strategies based on the school sums. Therefore, a Chi-square was computed on a three by eight contingency table to examine this possibility. With ndf of 14, the Chi-square was 34.20, $p < .005$. This indicates that the use of strategies was dependent upon the school setting. In looking at these differences, the urban (School B) students' heavy use of impulsive strategies (A), the suburban subjects' slightly greater use of the fatalistic or environmental strategy (B), and the private school student's greater reliance on planning (F) and intuitive (G) strategies and lesser proportion of compliant (C) strategies seem to account for the

the differences between schools.

In brief, when the strategies used in all the decisions from all the subjects are considered, girls significantly more often than boys rely on impulse for their decision-making or become "paralyzed" in the face of a decision situation. Boys more frequently than girls tend to use intuitive methods for handling their decisions. The other five strategies seem to be used in similar proportions by boys and girls alike.

Combining sexes and comparing across schools, the urban students significantly more often rely on impulse. The suburban students tend to leave their decisions to fate or environment slightly more often than the other two schools. The private school students significantly more often use planning and intuitive methods for coping with their decisions.

All groups rely on the planning strategy: School A used it 22% of the time, School B, 26% of the time and School C, one-third of the time. School A students also use impulsive (24% of the time) and compliant (20% of the time) strategies. School B uses the compliant strategy heavily (20%) in addition to the planning one. For School C no strategy in addition to the planning one is used as frequently as 20% of the time. However, School C's significantly heavier reliance on the intuitive strategy in relation to the other two schools has been noted.

B. Distribution of Proactive-Reactive Strategies Based on All Decisions

The eight decision strategies given in Section A can be broken into two basic groupings. The first grouping we call a proactive[1] decision process.

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[1] The term "proactive" we have borrowed from Gordon Allport. (See Allport's "Psychological Models for Guidance," in Guidance: An Examination Mosher, R.L., Carle, R.F. and Kehas, C.D. Harcourt, Brace, & World, New York: 1965.

In this process the student had somehow personally engaged with himself and his environment in his decision-making. He accepted the responsibility for making his own decisions and began to move toward this end. Under this proactive grouping we have placed the planning, intuitive, agonizing, and delaying or moratorium-type strategies.

The second grouping embraces a set of reactive decision processes. When a subject in talking of his decision seemed to be reacting to himself and/or his environment and for whatever reason was avoiding confronting his decision situation as something which belonged to him and was his to settle, his decision was placed in the reactive grouping. Four decision strategies were placed in this category. These strategies include the impulsive, fatalistic, compliant and paralytic approaches to decision-making.

The distribution when all decisions are assigned to either the proactive or the reactive grouping is given in Table VII-9. This table indicates that one-half of the decisions were rated as using proactive strategies and the other half, reactive. This means that in only one-half of the cited decisions, the adolescents took the initiative in the decision-making process. In the other half of the decisions, the students were allowing their decisions to be made for them by other people, impulse or outside circumstances. This finding begins to point toward a lack of self-direction in at least 50 percent of the decisions made by adolescents and highlights the need to help these students learn to make decisions.

To see if there were differences across the schools, a Chi-square was computed. With ndf = 2, the Chi-square was 13.97, $p < .001$. This indicates that the two basic classifications of proactive-reactive processes are significantly related to the school setting. Inspection shows that the urban students used reactive processes 59% of the time and proactive ones, 41%. The suburbanites were reactive 53% of the time and proactive 47%. In only one of the three schools, the private one, were the students more often proactively engaged (61% of the time) in decision-making rather than reactively involved (39%). This indicates, then, that the students in the urban school most frequently leave their decisions to others or environmental control while the private school subjects most frequently take the initiative and responsibility for making their own decisions. While the suburban students stand between the other two groups they appear to be more like the urban subjects on this dimension.

TABLE VII-9

PROACTIVE-REACTIVE PROCESSES BASED ON ALL DECISIONS

School	Sex	Proactive	Reactive
A	M	33	37
	F	29	51
Total		62	88
B	M	41	41
	F	37	49
Total		78	90
C	M	53	21
	F	55	48
Total		108	69
All	M	127	99
	F	121	148
Total		248	247

To examine whether there were differences by sex, Chi-square was computed for the male-female sums by proactive-reactive grouping. With ndf equal to 1, Chi-square was 5.31, $p < .025$. This finding indicates that girls significantly more often than boys make their decisions reactively. This finding holds up on an overall basis and when girls are compared with their male peers from the same school. However, it should be noted that the girls in the private school make more decisions proactively than they do reactively while the urban school girls use an extremely large percentage of reactive processes.

C. Distribution of Preferred Strategies

When all the decisions for each student had been rated, we were then able to assign a "preferred strategy" rating to each student. When any single strategy of the eight possible ones was assigned to all or two out of three of a student's decisions, that strategy was given as an overall or "preferred" rating to the particular student. When a student used a different strategy for each decision that student was assigned a "multi" overall rating indicating that he does not have one preferred strategy approach to his decision-making. A breakdown by sub-group is given for the preferred strategies in Table VII-10.

In looking at this table about one-third of the students have no one preferred strategy but use different approaches to their different decisions. This proportion holds up regardless of school or sex differences. Only two minor differences appear in looking at the strategies themselves on an all boy-all girl basis. Nineteen percent of the girls use "impulsive" strategies as a preferred approach while only 7% of the boys do. In the intuitive group, eight percent of the boys prefer this strategy while only one percent of the girls do.

TABLE VII-10

PREFERRED STRATEGIES

School	Sex	N	Strategy								
			A	B	C	D	E	F	G	H	M
A	M	28	3	1	4	4	2	4	2	-	8
	F	30	9	1	3	-	1	4	-	1	11
	Total	58	12	2	7	4	3	8	2	1	19
B	M	29	2	4	2	-	1	10	1	-	9
	F	30	3	3	4	3	1	4	-	-	12
	Total	59	5	7	6	3	2	14	1	0	21
C	M	29	1	1	3	1	-	9	4	1	9
	F	38	6	-	3	3	2	13	1	1	9
	Total	67	7	1	6	4	2	22	5	2	18
All	M	86	6	6	9	5	3	23	7	1	26
	F	98	18	4	10	6	4	21	1	2	32
	Total	184	24	10	19	11	7	44	8	3	58

In looking at the school and sex combinations some other trends appear. Approximately one-third of the boys in School B and the boys and girls in School C utilize planning strategies as their basic approach to decision-making. This proportion does not hold for the other three sub-groups. The boys in School A and the girls in B distribute themselves rather evenly across several preferred strategy groupings. Thirty percent of the girls in School A (the urban one) utilize a basic impulsive approach to their decision-making. In fact, it is the girls in School A who push the total number of girls using impulsive approaches up to a large number.

In brief then, about one-third of the students use several approaches to decision-making. Where one of the eight strategies is preferred, the difference seems to lie in being a female from School C for the impulsive grouping and a male from Schools B and C or a female from C for the planning strategy.

D. Distribution of Proactive-Reactive Processes Using Preferred Strategies

Using the proactive-reactive classification of decision strategies, each student on the basis of his decisions can be assigned to one of the two groups. When all or two out of three of a student's decisions fell into the impulsive, fatalistic, compliant, or paralytic strategy areas, that student was placed in the reactive grouping. The same method of classification was used to assign the planning, intuitive, agonizing, and delaying strategies to a proactive grouping. Where a student had only two decisions with one using a proactive and one a reactive strategy, he was assigned to a "multi" or "M" group. The breakdown on this dimension is presented in Table VII-11.

TABLE VII-11

PREFERRED PROACTIVE-REACTIVE STRATEGY PROCESSES

School	Sex	N	Proactive	Reactive	Multi
A	M	28	12	13	3
	F	30	8	21	1
	Total	58	20	34	4
B	M	29	16	13	0
	F	30	11	16	3
	Total	59	27	29	3
C	M	29	22	7	0
	F	38	22	14	2
	Total	67	44	21	2
All	M	86	50	33	3
	F	98	41	51	6
	Total	184	91	84	9

Again utilizing Chi-square on a two by two contingency table of all boys and all girls versus proactive and reactive preferred strategies a significant difference is achieved.[1] ($x^2 = 4.30$; df = 1; $p < .05$). Not only are the decisions of girls made reactively more often than boys, but also girls tend to "prefer" reactive modes of decision-making significantly more often.

When Chi-square is applied to the differences among schools in the proactive-reactive groups, it is again significant. ($x^2 = 11.5$; ndf = 2; $p < .005$.) Here the trend is quite clear. Fifty-nine percent of the students in School A make decisions reactively. In School B there is an almost even division between proactive and reactive groups. In School C, two-thirds of the student population make decisions proactively. It can be noted again here that the girls in School C do not really fit into the overall sex difference. More of them make decisions on a proactive basis than on a reactive one.

Summary

In this chapter we have presented the types and contents of the decisions-in-process of the adolescents interviewed in this study as well as the strategies used by the students for their decision-making.

Little difference was found between boys and girls concerning their use of the educational or vocational categories. However, on personal decisions, there were a significantly higher proportion of girls (86%) when compared to boys (63%).

At least 50% of the students in each school regardless of sex listed an educational decision as the one they currently considered most important. In the urban school, almost as many students ranked vocational decisions as most important. Twenty-seven percent of the suburban school students felt vocational decisions to be most important while the remaining 10% thought personal decisions most important for them. In the private school, a shift was noted. Here, over one fourth of the students ranked personal decisions as the most important ones they were making while only 15% of their colleagues voiced vocational decisions as most important.

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[1] For analysis purposes, the "multi" group was not included due to inadequate representation.

The actual content of vocational decisions varied very little. However, on the dimension of general vs. specific, twice as many girls in the suburban school were concerned with the selection of specific careers rather than a more general consideration of vocations. The suburban boys and their peers of both sexes in the other two schools were about equally split between general and specific considerations of careers.

In the content of the educational decisions, the suburban and private school students distinguish themselves from the urban school students in their distinct concern over the selection of a college or school to attend following high school. The boys in the urban school were more generally concerned with post high school plans while the urban girls' educational decisions centered around current curriculum and course change which were often related to vocational goals.

Interpersonal relationships emerged as an important content of personal decisions for five out of the six subgroups. The boys in the private school were the only subjects not citing this type of decision. They were definitely more concerned with intrapersonal ideological ideas such as "Who am I?", "What are my values?", and "Should I be a conscientious objector?". Girls in the suburban and private school also frequently discussed decisions revolving around ethics, values, and identity.

Considering the eight strategies used in all decisions from all subjects, the strategy utilized most frequently (about 25% of the time) by both boys and girls is the planning one. Impulsive and delaying strategies were used next most frequently (17-18% each) followed by the delaying (11% use) and fatalistic (10%) strategies. Agonizing, intuitive, and paralytic approaches were each used 5-6% of the time. Significant sex differences were found in the use of impulsive strategies (girls use them more often than boys), and intuitive strategies (used more frequently by boys).

The significant difference found across the schools was attributed to the urban school students' heavy use of impulsive strategies, the suburban school's greater reliance on fatalistic or environmentally determined solutions and the private school's larger use of planning and intuitive strategies. These were the major between school differences in the decision-making strategies, regardless of sex.

When the eight strategies based on all decisions are broken into a binary proactive-reactive classification, only the students in the private school more frequently engage proactively in decision-making rather than use reactive strategies. It was also found in this portion of the study that decisions made by girls are significantly more often reactive than proactive in comparison with the boys.

Applying preferred or overall strategy ratings to the decisions of each student, about one-third of the students use varied approaches to decision-making with no single preferred strategy. Where one of the eight strategies is preferred, the difference seems to lie in being a girl from the urban school with preference for impulsive strategies or a boy from the suburban school along with the boys and girls from the private school with a heavier preference for the planning strategy grouping.

The boys in the urban school and the girls in the suburban distribute themselves rather evenly across several preferred strategy groups.

Each student was also assigned to a binary preferred proactive-reactive strategies group. Here the trend between schools is quite clear. In the urban school, 59% of the students make their decisions reactively. The suburban school is almost evenly divided between the proactive-reactive classification while two-thirds of the students in the private school made their decisions proactively. In this most general category of decision-making, e.g. proactive vs. reactive, the differences across the three schools was most pronounced. In this aspect of the overall study, then, there were some significant differences according to sex, namely that boys and girls do manifest some important differences both in the content and the style of decision-making. However, from a broader viewpoint the between school differences again appear as the important sources of variation on the decision-making dimensions.

CHAPTER VII

APPENDIX A

SAMPLE CODE NUMBER________

STUDENT INTERVIEW SCHEDULE

INTRODUCTION

I am part of a research team interviewing students in the 11th grade in different schools around Boston. I'd like to talk with you today about some of the decisions you make as a student and a teenager and how you go about making these decisions, and also about some of your feelings about school and school work.

Since we're interested in what students in general think about these things, your identity will be kept confidential. When we discuss our study, we will only discuss the results and no one will know who you are. What you say here today will not be given to anybody in the school or in your community.

I'm going to take notes as we talk so that I'll be able to remember what you think about these things.

INTERVIEWER:	DATE OF INTERVIEW:
SCHOOL:	TIME TAKEN FOR INTERVIEW:
NAME OF RESPONDENT:	DATE OF BIRTH:
	AGE: YRS._____ MOS. _____
RESPONDENT'S CURRICULUM:	RESPONDENT'S SEX:

I. DECISION-MAKING QUESTIONS - DIRECTIONS (use next 3 pages for recording decisions in each of 3 areas)

"We're interested first in what you consider to be the most important decisions that boys and girls your age face. What would you say is the most important decision or choice you are now making?"

(If student can't think of a decision you may need to ask them about problems they're confronting since decisions are often connected with these.)

PROBES

Areas to be probed for if not volunteered:

significant other (not just name but relationship to interviewee)

acceptance of responsibility for choice

use of resources

kinds of information and planning in relation to decision

Possible Probe Questions:

What would you say is the most important choice you are now making?

Why did you choose this?

How are you going about it? (for at least one decision, get alternatives considered)

Have you talked with other people about this? (also ask about reading if applicable)

Which one of these people do you think would have the most influence in your thinking about______________?

TRANSITION TO NEW DECISION AREA

Sum up what's been said. For example, "Now that you've told me about ___________________, can you tell me about a decision or choice you're making in the (educational, vocational, personal) area?"

(Unless they volunteer the personal area, save it until last. Examples may be needed such as "What kinds of personal decisions are you now making such as a decision about friends, dating, rules at home, use of car, hair style, and so forth?")

FIRST DECISION MENTIONED

AREA_______________________

(Before going on to next decision, make sure areas mentioned for probing have been covered)

CHAPTER VIII

COMMUNICATION STYLES AND PATTERNS BETWEEN ADOLESCENT BOYS AND THEIR PARENTS IN ONE SCHOOL

Elizabeth P. Rogoff

Introduction

The study reported in this chapter was focused on the process of communication between adolescent boys and their parents in one of the three schools. Because of limitation of budget and staff, we could not carry out this aspect of the project across all the schools. We decided that extensive interviewing with both parents and their sons would be necessary to develop any significant picture of such a complex process as family communication. This means that information and implications from this aspect of the study must be restricted because it was derived from a single school.

We selected the suburban school as the single location for the communication study largely because of the likelihood of parent participation, participation obviously essential to the heuristic nature of the study. Also we decided to focus only on the boys in the sample since we could not adequately sample both boys and girls. A further limitation was the selection of boys who came from homes which contained both biological parents in order to partial out possible influences on communication patterns due to loss of one parent, divorce, separation or adoption.

The research sample, thus, was composed of 11th grade boys, living with their biological parents, who attended the suburban public high school of the larger study. We ended up with a total of 23 families who meet the above criteria and would agree to participate. Three families refused to take part in the study.

Research Instruments

The major research instrument of the study was an open-ended interview. The interview schedules differed slightly for the parents and the adolescents in the study, but they were comparable. Several questions differed in their wording and the parent interview had one less question than the adolescent interview.

Both interview schedules were developed from a small pilot study conducted in the academic year of 1965-1966 with a group of 38 adolescents and 3 sets of parents. The questions evolved from the information these people provided. A final selection was made on a subjective basis by the investigator. The questions and probes used were those which seemed most useful in eliciting responses from both parents and adolescents.

Although the interview schedules (see Appendix A) may look like closed interviews, the detail of these schedules was primarily for the edification of others who might be using them. The order of questions was not mandatory, nor was an answer to every question necessary. Rather, this outline was merely a guide to provide a framework for the types of information that seemed relevant. Some of this information was elicited without direct questioning and followed naturally from what people were discussing. During the interview every effort was made to be flexible, to follow the subject's leads, and to seek appropriate clarification.

Methodology

Before discussing the method that was finally used, some of the alternative methods of approach deserve some consideration. In trying to look at the process of communication, perhaps the best way to do this is the "fly on the wall" notion. Here the family can be observed in its own environment, discussing a topic that is important to them. Of course, the practical difficulties of this method are obvious. An observer is not a fly on the wall, and his very presence may prove a disruption to the family's normal interaction. The time and cost in terms of training such an observer or several observers and the time involved in getting an adequate sample of family interaction may be prohibitive. In addition, sometimes it is to the experimenter's advantage to provide his subjects with the material they are to discuss.

A second alternative is to provide the material which the family is to discuss and see what the members do in this situation, e.g., to simulate a communication situation. Two types of experiments which attempt to simulate interaction have been conducted. These experiments assume that such interaction will reflect stable family characteristics. One method is the "revealed differences" method. Members of a family are asked how they think a particular situation should be handled, and when they differ, this difference is pointed out by the experimenter, and the family's task is to resolve the difference (Strodtbeck, 1958). In the process the family demonstrates how its members interact along several dimensions. A variation on this method is to ask the family to make a decision that is best for the entire family after each member in the family has indicated his individual preference (Ferreira, 1963). This alternative, as the first, requires skilled observers, detailed electric recordings of the sessions and extensive analysis, all of which require sizable outlays of time and money. Also, this alternative is best adapted for a direct measure of the family interaction. If the information sought as in the present study includes how the different members feel about the interaction or how they perceive it, this technique is of limited value.

Strodtbeck (1958) points out that there is a difference between what an observer of family interaction sees and what the participants may describe (perceive or experience). Therefore, in his experiment Strodtbeck regarded the participant descriptions of the family interaction as highly fallible. This writer views the methods of direct observation and self-report not in terms of relative validity. Instead, the methods may represent different procedures designed to tap different types of information, both of which are fallible in their own ways. For example, direct observation of family interaction relies to a large extent on the degree of family involvement that can be elicited by the situations presented. Strodtbeck contends this is a valid and reliable measure. On the other hand, it can be convincingly argued that family concern or involvement tends to be greater in situations of vital importance to the family, not hypothetical situations that can be viewed with some distance and objectivity. Therefore, what happens in the real situation may not be as adequately represented in the "as if" situation as Strodtbeck suggests. The outcome may be the same. For example, the father may still have the last word, but the process between the first and last word may be somewhat different from that presented in the experiment. In addition, not all family interaction could be considered under the heading of reconciling differences or making decisions. Thus, particularly in regard to communication, a researcher requires several different types of communication situations that might elicit different types of interaction.

To summarize then, the major tool of this study was an open-ended interview in which the subject was asked to describe the communication in his family. The interview encouraged both a description of the communication situation and an expression of the participants' attitude toward the communication. In the description of the communication interaction there is the weakness Strodtbeck points out in terms of the reliability problem. By conducting two interviews, one with the adolescent and one with both of his parents, all the participants in the communication system were given a chance to describe their experiences and perceptions. In this way it was hoped that a more accurate picture would emerge.

The method suggested does not completely answer the criticisms that are usually leveled against the kind of self-report technique being used. The inaccuracies due to such factors as "inner states" of temporary or long duration, the desire to provide a socially acceptable picture, the need for privacy in front of a total stranger, or overt resistance are real. But beyond a constant awareness of the limitations and distortions that creep into self-reports, and beyond the types of built-in checks established, little more can be done except to trust in the intent on the part of the subjects in the study to provide significant descriptive information.

Procedure

All the interviews were tape recorded. The adolescent boys were interviewed before their parents.[1] Prior to asking any questions, the issue of confidentiality was discussed. All of the boys were interviewed at the school during a study hall during the regular school day. In most cases the interview and the two tests were completed within the given period. Periods varied from 48 minutes to 90 minutes; however, most periods were about 48 minutes in length.[2]

After a student was interviewed, and if the makeup of his family met the criteria outlined, a letter was sent to his parents inviting their participation. Shortly after the letter was sent, in most cases within two or three days, a follow-up phone call was made an an appointment was arranged. Since both parents had to be present, meetings usually took place early in the morning, late in the afternoon, in the evening, or on weekends. If the session was early in the morning or late in the afternoon, arrangements could usually be made to meet at the high school. For meetings that took place on the weekend or during the evening, the parents came to Harvard where rooms were available. Meetings with parents lasted from 50 minutes to more than two hours.*

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[1] All of the interviews were conducted by the same young-looking, female researcher.

[2] Nine of the interviews were 48 minutes in length. Three were 90 minutes in length. The remaining 11 interviews lasted for anywheres from 50 to 60 minutes.

One important point should be made in regard to the interview setting. In the case of the adolescents, they were in familiar surroundings with an unfamiliar person. The familiarity of the surroundings may well have added to their comfort in a new situation. The parents who traveled to the University were faced with unfamiliar surroundings and an unfamiliar person. Even those parents interviewed at the high school were in a "strange" situation. The decision to interview parents in these places was carefully considered. One alternative that was considered and rejected was to conduct the parent interview in the home. It was felt that the privacy and somewhat more formal atmosphere of an office setting might be more conducive to the business at hand. However, this rule was not hard and fast. In one case where it became a choice of interviewing the parents in their home or having to forego the interview altogether, the interview was conducted in the home.

The Scheme for Analysis of Communication

A comprehensive review of the research literature on communication had indicated no uniquely appropriate system for analysis of the interview material.** As a result the writer developed a modified version of a system based on the work of Berlo, (The Process of Communication, N.Y. Holt, Rinehart & Winston, 1960).

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* Six of the parent interviews were approximately one hour, eight were approximately an hour and a half, and nine interviews lasted for approximately 2 hours.

** See Parent-Child Communication During Adolescence.
E.P. Rogoff: Studies of Adolescents in the Secondary School, Center for Research and Development on Educational Differences, Publications Office, Longfellow Hall, H.G.S.E., 1967. This also contains an extended discussion of the rationale for the 6 level category used in the present study.

The original Berlo system contained four categories (Types III through VI below). In addition, the writer included two types not contained in the original system. As the description below makes obvious the original Berlo system did not include either passive or active avoidance of communication as a possible descriptive category. When considering the patterns that might occur between adults and their sons, the writer thought it appropriate to expand the original system somewhat to allow for such a possibility. The final categories used for classifying the interview material was as follows:

> Passive Noncommunication (Type I Communication) - An absence of a verbal exchange in an absence of motive or intention to avoid such an exchange. Communication just does not take place or is not perceived as important or necessary.
>
> Active Noncommunication (Type II Communication) - An absence of a verbal exchange when one or more of the communicators intend or actively seek to avoid certain topics, certain ways of communicating (e.g., questioning), or certain other communicators.
>
> Pseudo-Mutuality (Type III Communication) - A one-way exchange in the presence of two or more communicators. The exchange is a monologue. One communicator does the talking, and the other is silent.
>
> Reactive Mutuality (Type IV Communication) - A two-way exchange in which each communicator is primarily concerned with presenting his own point of view.
>
> One-Sided Mutuality (Type V Communication) - A two-way exchange in which one communicator tries to understand the other's point of view.
>
> Two-Sided Mutuality (Type VI Communication) - A two-way exchange in which both communicators try to understand the other's point of view.

After the tape recorded interviews were transcribed, each interview was divided into a series of incidents of communication. The incidents can be considered the basic unit for analysis. The criteria for defining an incident were the following: (1) an example had to contain a single exchange of communication; (2) the exchange had to occur between the adolescent in the study and one or both of his parents; (3) the exchange had to contain sufficient descriptive information so that the incident could be considered a relatively complete thought,* and (4) the exchanges had to come from the present or recent past (the preceeding 12 months). Excluded were comments concerning communication in the distant past, or comments or wishes of how communication "might be."

Some Reliability

With the incidents clearly indicated the interviews were submitted to two judges, both doctoral candidates with clinical experience. The training of the judges was limited to two sessions; the total training time for each judge was 3½ hours. Each judge was given a manual (Appendix B) and six interviews included one parent and five adolescent interviews.** In the first session the scoring manual and the practice interviews were discussed in detail. After this two hour session each judge was given half of the parent interviews and half of the adolescent interviews, but each proceeded to score only two of the parent interviews and two of the adolescent interviews. The primary investigator also scored these interviews and then met with each judge separately to discuss and further clarify the scoring manual. The judges then rated the remaining interviews with no further help. When this was completed, both judges exchanged interviews and scored the remaining half of each group.

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* The definition of a "unit" for systematic analysis is not rigorous. However, the definition seems suitable for and close to the spirit of the data collection procedure. In the interviews the subjects might have been asked to give a specified number of examples of communication, and these examples might then have become the unit for analysis. However, such a restriction may have inhibited authentic examples of family communication. It was felt that giving subjects the freedom to tell their own story in their own way, would increase the chances for descriptions of real family communication. See Appendix B for descriptive examples of the criteria for communication incidents.

The investigator examined each transcript, marked the "incidents" using the above subjective criteria, and then submitted the incidents to independent judges for rating. No direct test of reliability for "incident" definition was attempted. Indirectly, of course, if the judges could not reliably use the scoring categories, this might have been due to either a poor scoring system or an inadequate definition of the unit for analysis.

** These interviews were collected from parents and adolescents not in the research sample.

Most identified communication incidents contained descriptions of one type of communication behavior only, a few incidents contained descriptions of two types of communication behavior. The judges were told only that in some cases more than one type of communication behavior may be described, and that in those cases they should indicate a score for each type.[3] In the analysis each score was treated as if it represented a separate communication incident.

To prevent judgments made in the parent interview from affecting judgments made in the interview of the adolescent from the same family (and vice versa), both the parent and adolescent interviews were divided into two groups, one containing the odd numbered interviews, the other containing the even numbered interviews.[4] Each judge was given the odd numbered interviews of one set and the even numbered interviews of the other. In addition, the judges were instructed to rate all the interviews from the same group before starting the second group.[5] In this way all three judges scored all the adolescent interviews (23) and all the parent interviews (23).[6]

Table VIII-1 shows the interjudge agreement on the scoring of the communication descriptions from the interviews. The first row shows the percentage of agreement between the judges that might be expected by chance. The next two rows show the observed agreement between the judges for the adolescent interview and the parent interview. Rater agreement is slightly lower in the parent interviews than in the adolescent interviews. However, in both cases the percentages of agreement between the judges greatly exceed those expected by chance.

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[3] 1.6% of the final scores of the parent interviews and 6% of the final scores of the adolescent interviews came from incidents containing two communication descriptions.

[4] Each family was identified by a code number, 1-23. These numbers were assigned in the order in which the adolescents were interviewed.

[5] After all the scoring was completed one of the judges remarked spontaneously that in some cases she was interested in comparing the scores of the adolescent with those of his parents, but she was unable to do this because she was unable to recall the scores.

[6] Five retest interviews were included with the parent interviews for rating purposes only. These retest interviews were not included in the analysis described here.

TABLE VIII-1

INTERJUDGE AGREEMENT

ON

INTERVIEW COMMUNICATION DESCRIPTION SCORES

(6 Communication Categories)

Agreement	3 Judge Agreement	2 or More Judge Agreement	No Agreement	Total* Number of Incidents
Expected by Chance	2.78%	44.45%	55.55%	
Actual				
Adolescent Interview	53.15%	96.85%	3.49%	286
Parent Interview	45.65%	93.21%	6.79%	368

* These totals differ from the total number of final scores due to the double incidents. In this analysis double scores were counted as a unit. In the final analysis each part of the double score was counted separately.

The slightly lower agreement between the judges in the parent interviews compared to the adolescent interviews may be due to the greater initial practice experience in the case of the adolescent interviews or the fact that the rating task in the parent interviews was more complex than for the adolescent interviews. In the case of the parent interviews the judges rated not only the communication description, but who reported the incident: father, mother or both parents jointly. Table VIII-2 shows the percentages of agreement between the judges in identifying the source of a description, communicator identification. As with the communication categories, rater agreement on the identity of the source of an incident exceeds chance expectation.

TABLE VIII-2

INTERJUDGE AGREEMENT ON COMMUNICATOR IDENTIFICATION IN PARENT INTERVIEWS

(3 Categories)

	3 Judge Agreement	2 or More Judge Agreement	No Agreement	Total Number of Incidents
Expected by Chance	11.11%	77.78%	22.22%	
Actual	71.20%	99.73%	0.27%	368

The percentages of agreement between the judges when both the communication description and the source of an incident are considered simultaneously are presented in Table VIII-3. In spite of these stringent conditions, the observed percentages of agreement greatly exceed chance expectations.

TABLE VIII-3

INTERJUDGE AGREEMENT ON COMMUNICATION DESCRIPTIONS AND COMMUNICATOR IDENTIFICATION IN PARENT INTERVIEWS

(18 Categories)

	3 Judge Agreement	2 or More Judge Agreement	No Agreement	Total Number of Incidents
Expected by Chance	0.31%	16.05%	83.96%	
Actual	33.15%	85.59%	14.40%	368

A comparison of the judges' use of each of the categories yields additional information on rater reliability. "Use" is defined as the percentage of the total number of incidents scored by a judge that is assigned to a particular category. Table VIII-4 gives the percentage of total incidents assigned to each communication category by each judge for the adolescent interviews. Table VIII-5 gives these percentages for the parent interviews.

TABLE VIII-4

ADOLESCENT INTERVIEWS

Percentage of Ratings Made by Each Judge in Each Communication Category

	Communication Category 1	2	3	4	5	6	Total Number of Incidents**
Judge 1*	10%	11%	6%	57%	10%	5%	297
Judge 2	9%	13%	5%	58%	12%	4%	298
Judge 3	11%	11%	17%	45%	12%	5%	291

* Investigator-Judge
** Different totals are due to differences in the number of double incidents scored by each rater.

TABLE VIII-5

PARENT INTERVIEWS

Percentage of Ratings Made by Each Judge in Each Communication Category

	Communication Category 1	2	3	4	5	6	Total Number of Incidents**
Judge 1*	11%	6%	3%	59%	15%	5%	372
Judge 2	11%	7%	6%	54%	18%	3%	380
Judge 3	12%	5%	16%	49%	14%	4%	370

* Investigator-Judge
** Different totals are due to differences in the number of double incidents scored by each rater.

With two exceptions the use of each communication category seems quite similar for all the judges. The exceptions are observed for Judge 3. In both interviews Judge 3 used category III more frequently than the other two raters. The same judge used category IV less frequently than the other two raters. In practice, this judge tended to rate categories scored as Type IV by the other two judges as Type III.

TABLE VIII-6

PARENT INTERVIEWS

Percentage of Ratings Made by Each Judge in Each Communicator Identification Category

	Source of Description			Total Number of Incidents**
	Mother	Father	Both	
Judge 1*	38%	28%	34%	372
Judge 2	39%	30%	31%	380
Judge 3	39%	28%	34%	370

* Investigator-Judge
** Different totals are due to differences in the number of double incidents scored by each rater.

The judges' use of the categories identifying the source of a communication incident in the parent interviews are presented in Table VIII-6. As in the case of the communication categories, the communicator identification categories used in the parent interviews show similar distributions for all three judges. From Tables VIII-4, VIII-5, and VIII-6 the general conclusion can be drawn that all the judges tended to use each of the categories for rating the interviews to a similar extent. From the standpoint of the categories themselves, of course, it is significant that all the categories were in fact used by the judges in assigning ratings to the incidents.

The ratings of all three judges were used to determine a composite score for each incident or stem. In those cases where all three judges agreed, the score was obvious. In those cases where two of the three judges agreed, the majority determined the final score. Finally, in those cases where there was no agreement between the judges, the score of the investigator-judge was assigned. Of a total of 668 incidents for both parents and adolescents, 32 or approximately 5% of the final scores of the interviews were assigned in the latter way.

The Results

In scoring the communication incidents according to the six categories, the judges also scored the primary source for each incident. This was only necessary in the parent interviews since the parents were interviewed together. However, this lends to three primary sources for the communication descriptions by parents - father only, mother only, and descriptions given in concert.

Inspection of the frequency distributions of the percentages of responses that parents produced in concert indicated that mothers shared on the average about 51% of all the responses they gave with the fathers. The range of responses varied from one mother with no responses classed as independent (100% of her responses are shared with the father) to another mother who shared only 13% of her description of family communication incidents with the father. Fifteen mothers shared between 28% and 73% of their responses with the fathers, and of the remaining 8 mothers, 4 shared less than 28% of their total number of responses with the fathers and 4 shared more than 73%.

Fathers shared on the average 56% of their total number of responses with the mothers. Two fathers gave no independent responses, or in other words, 100% of their responses were shared with the mothers. Five of the fathers shared less than 32% of their total number of responses with the mothers and 4 shared more than 80%.

The percentages for fathers and mothers suggested that the descriptions they produced in concert made up a substantial part of their own individual scores. On this basis, then, the "Both" scores could not be removed without causing at least some distortion in the individual scores of both parents.

As a result, the data will be presented to illustrate the categories used by parents including the three sources of communication, father only, mother only, and incidents described by both parents.* Table VIII-7 shows the number of responses produced by all the groups. The adolescents, interviewed separately, produced 297 incidents (an average of 13 per interview).

TABLE VIII-7

SUMMARY OF THE RAW DATA

	Total Number of Incidents	Mean Number of Incidents	Range	Mean Number of Different Categories Used
Adolescent	297	13	5-27	3.9
Mother	144	6	0-20	2.5
Father	102	5	0-10	2.2
Mother-Both*	269	12	2-28	3.3
Father-Both	227	10	5-28	3.0

* In those cases where the parents collaborated to tell one story, or one partner indicated he was speaking for both, a "Both" score was given. These collaborative efforts produced 125 incidents (an average of 5 incidents per interview).

The parents produced a total of 371 incidents. Mothers produced 144 incidents independently (an average of 6 incidents per interview). Fathers produced 102 incidents independently (an average of 4 incidents per interview).**

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*An adolescent may be thus confronted with three rather than two sources of communication at home.

** A t-test for independent samples shows no significant difference between the average number of incidents reported by fathers and the average number reported by mothers. The experimental value of $t=1.400$, $df=44$, $p=N.S.$ Although the difference in the average number of responses for both parents is not significant, there is a trend in the direction of mothers reporting more incidents than fathers. This trend may be due to an examiner effect where the interviewer was a female. This trend may also be explained by the tendency for women to talk more than men or the possibility that as mothers they have more to contribute since usually they have a greater opportunity to spend time with and talk to their children.

Adolescents as a group produced more responses than either the Mother or Father groups. This result persists even when the "Both" responses are added to the Mother and Father responses respectively, so that the Mother-Both category contains 269 incidents and the Father-Both category contains 227 incidents. The average number of incidents produced by the adolescents is 13. The average number of incidents produced when the Mother and Both responses are combined is 12. The average number of incidents produced by the Father and Both responses is 10.[7]

The range of responses produced by each group is also presented in Table VIII-7. While the adolescents described a minimum of 5 incidents and a maximum of 27, the majority of adolescents (15) described between 5 and 13 incidents. Seventeen mothers and 19 fathers reported between 1 and 8 communication incidents per interview. Sixteen mothers reported between 8 and 14 incidents when the Mother-Both category is considered, and 15 fathers reported between 5 and 10 communication incidents when the Father-Both category is considered. The range of responses is obviously greater with the "Both" category included for each parent. The mothers as a group, however, show a greater spread in the number of incidents they provide than do the fathers. The adolescents and fathers (including "Both" responses) show about an equal spread in the number of incidents they reported.

In addition to the variation in the number of responses provided by each group, the groups vary in the number of different communication categories they used in their descriptions of family communication. In the last column of Table VIII-7 the average number of rated categories used by the subjects are presented. Adolescents were rated as using 3.9 categories (out of a possible 6 in the scheme). Mothers were rated as using an average of 2.5 categories, while fathers were rated as describing an average of 2.2 communication categories.

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[7] The difference between the mean number of responses given by adolescents and fathers (including the "Both" responses) is not significant (t=.960, df=44, p=N.S.). Reasoning by analogy, the mean number of incidents produced when the Mother-Both category is considered is not significantly different from the Adolescent mean since the difference between the two means is even smaller than that between the Adolescent and the Father-Both category.

When the "Both" responses were added to the Mother and Father responses respectively, the mean number of different communication categories described by both parents increased but the Adolescent mean remains the highest. The mean number of categories described by the adolescents and the fathers are significantly different.* When the "Both" responses are added to the Father responses, the difference in the means remains significant ($t=3.108$, $df=44$, $p<.01$). In the case of the mothers, the difference between the mean number of different communication categories described by the adolescents and the mothers independently is significant ($t=3.771$, $df=44$, $p<.001$). However, when the "Both" responses are added, the difference in the means of both groups is not significant ($t=1.838$, p=N.S.).

These results indicate that adolescents were rated with more types of communication than either mothers or fathers. This result may be due to the removal of the "Both" scores since those scores accounted for approximately half of the parent responses. However, when the "Both" scores were restored to the Mother and Father categories respectively, the difference between the Adolescent and Father categories remained significant. While mothers were rated with significantly fewer types of communication than adolescents in the absence of the "Both" scores, this difference disappeared when the "Both" scores were included. Thus, two conclusions can be drawn. Fathers were rated with the smallest number of communication categories, and the difference between them and adolescents was significant. Mothers, on the other hand, did not show a significant difference in the number of different categories attributed to their descriptions compared to the adolescents. The difference that was found can be explained by the reduction in the number of responses that occurred when the "Both" responses were removed.

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* A t-test for the significance of the difference between the means for two independent samples indicates that the difference between the mean number of categories is significant, $t=4.897$, $df=44$, $p<.001$.

Table VIII-8 supplements the previous results. It illustrates the number of communication categories that the subjects used.

TABLE VIII-8

PERCENTAGE OF SUBJECTS IN EACH GROUP USING A GIVEN NUMBER OF CATEGORIES TO *DESCRIBE FAMILY COMMUNICATION**

Number of Categories Used	Groups				
	Adolescent N=23	Father N=21	Mother N=22	Father-Both N=23	Mother-Both N=23
1		24%	32%	4%	4%
2	4%	33%	14%	30%	22%
3	30%	29%	27%	30%	30%
4	43%	14%	18%	30%	26%
5	13%		9%	4%	13%
6	9%				4%

* Due to rounding the percentages in each group do not necessarily equal 100%.

These figures show that adolescents used a wider array of categories than parents. No adolescents were rated as using only one category. Ninty-five percent of the adolescents were rated as using 3 or more communication categories to describe family communication. Eighty-six percent of the fathers and 73% of the mothers were rated as using 3 or fewer categories to describe family communication.

When the "Both" responses were added to the independent parent responses, 64% of the fathers and 56% of the mothers were rated as using 3 categories or fewer to describe family communication.

While it is difficult to interpret the significance of these findings, it does seem apparent that adolescents use a wider array of communication categories than their parents when rated by the present system. This could indicate a greater flexibility in communication by adolescents and hence a less confined style in responsiveness. Indeed they may be more "aware" or "open" in conveying and receiving messages than their elders. This is not to suggest in a cultist way that adolescents are necessarily better than parents, e.g., more open. Such an interpretation goes far beyond the data. Rather a more plausible explanation may be that this difference derives from the unequal status of adolescents vis à vis parents. It was noted earlier in this paper that there is a given asymmetry in the parent-adolescent dyad. The parent is in a superordinate position (in spite of the popular press). A subordinate may be forced to use more flexibility in responding in such a situation, or he may be more sensitive to nuances and subtleties in the communication exchange. Obviously this one aspect of communication research needs further elaboration. Do people in positions of responsibility and command use a narrow range of communication patterns when compared to subordinates?* The data in this research suggest that the adolescents used a significantly broader array of communication categories than do their parents.

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* In teaching for example, it may be significant to document the array of communication interaction for both the teacher and the pupils. If the results of this study are significant then one would expect teachers to use fewer and pupils more communication styles.

The Distribution of Responses for Each Source Across The Communication Categories

The question of primary importance in this study concerns the distribution of response categories across the classification system according to the subject's position in the family. Two alternative ways to treat the data were considered: normalize the responses or use them in their original form. The latter alternative entails keeping in tact the total number of answers each subject provided. The data can be treated in this way if one assumes that the total number of incidents given by each subject is proportional to the amount of his communication in the family. In such a case each subject's responses would be weighed accordingly in the final analysis. However, the assumption that subject "talk" in an interview stands as an approximation of how much he may talk at home is tenuous at best. Therefore this method of analysis was discarded. Instead the writer chose to normalize the responses within each interview. This involved proportioning the responses for each subject according to his own total number of responses. In this way differences due to differing verbal facility during the interview are partialled out, and no assumptions are made regarding the relation between a subject's ability to communicate during an interview and his ability to talk to his (or her) family.

Table VIII-9 shows a normalized frequency distribution for communication descriptions provided by the adolescents. Approximately 55% of the descriptions fall into the Reactive Mutuality Category (IV), defined as both participants expressing their own point of view. The next highest frequency is found in category V, One-Sided Mutuality. This category defined as one communicator attempting to understand the other communicator's point of view, contains 15% of the total number of responses from adolescents. Next in frequency of description with 11% of the total number of adolescent responses is Active Noncommunication where communication is avoided. Passive Noncommunication accounts for 10%

of the total responses, while the two categories that are least frequently described are Psuedo-Mutuality (category III) in which 6% of the total number of responses were described and Two-Sided Mutuality (category VI) in which 3% or the smallest number of responses were described. Thus adolescents predominately described one type of communication (category IV) as the major mode of communication interaction. Categories I, II, and V account for almost all other communication interaction.

This composite picture of communication as described by adolescents shows interesting similarities and differences when compared to patterns described by the parents.

For mothers, scored in the Mother-Both category, Reactive Mutuality (IV) was the most frequently described communication type, accounting for 61% of the responses. Second in frequency of description for mothers was almost a tie between category I (12%), Passive Noncommunication, and category V (13%), One-Sided Mutuality. The other three categories account for less than 10% each of the responses. The distribution in the Mother-only category was not dissimilar.

For fathers' responses including the responses provided jointly with mothers (e.g., "Both" responses), Reactive Mutuality (IV) was also the most frequently described communication type, accounting for 61% of the responses. Second in frequency of description is a tie between categories I (Passive Noncommunication) and V (One-Sided Mutuality), both of which account for 11% of the total number of responses respectively. The remaining three categories account for less than 10% each of the total number of normalized responses. These percentages are similar to those produced by the Mother-Both responses (VIII-9). This similarity may in part be due to the shared responses which are counted in both cases.

When only the independently initiated responses of fathers are examined (eliminating "Both" responses), there is a change in the distribution of the fathers' responses. The communication categories are more differentiated without the inclusion of the "Both" responses. The order of the first three categories remains the same as that described by mothers. However, there is a shift in the Reactive Mutuality Category from 61% to 48%. In addition, Psuedo-Mutuality (III), or the one-way exchange of information where one person does all the talking and the other all the listening, increases in frequency from 6% to 10% and the frequency of description of Two-Sided Mutuality drops from 5% to 2%.

TABLE VIII-9

SUMMARY

Percentage Distributions of Descriptions of Communication

As Derived From Normalized Responses of Subjects in Each Group*

	Communication Categories					
	I Passive Noncommunication	II Active Noncommunication	III Pseudo Mutuality	IV Reactive Mutuality	V One-Sided Mutuality	VI Two-Sided Mutuality
ADOLESCENT GROUP						
Percent of Total Number of Normalized Responses	10	11	6	55	15	3
MOTHER-BOTH GROUP						
Percent of Responses	12	4	3	61	13	7
MOTHER GROUP						
Percent of Responses	10	7	4	57	14	4
FATHER-BOTH GROUP						
Percent of Responses	11	6	6	61	11	5
FATHER GROUP						
Percent of Responses	13	5	10	48	14	2

* Due to rounding, the percentages in each group do not necessarily equal 100%.

Table VIII-9 summarizes these results. The predominant mode of communication described by parents and adolescents was Reactive Mutuality (IV). This category suggests that the primary mode of interchange is one in which both communicators present their own point of view and each reacts to the previous communication of the other. The second most frequent mode was practically a tie between categories V (One-Sided Mutuality) and I (Passive Noncommunication). One-Sided Mutuality indicates that one of the communicators is trying to understand the point of view of the other. This type of interaction assumes an empathic response and a certain amount of anticipatory communication behavior from one of the communicators. Passive Noncommunication means that family members tend to leave a certain amount of communication unspoken. Communication simply does not take place perhaps out of a kind of lethargy or a laissez-faire attitude.

While each group was quite similar in their description of the first three categories mentioned, the last three categories seem to differ in order for each group. While the absolute differences represented by the percentages are not great, their relative importance in each group do suggest some differences. The adolescents were more inclined to use "Active Noncommunication" than were the parents. However, it may be that for parents it was more socially desirable to either not describe incidents which might fall into this category, or they may have couched their descriptions in terms that caused them to be scored in Category I.

Of all the groups the fathers described Psuedo-Mutuality the most frequently. On the other hand, not only is Two-Sided Mutuality the least frequently described category relative to their own group, but fathers described this category half as often as the mothers, and even slightly less often than the adolescents did.[8]

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[8] The smallest percentage of responses for fathers and adolescents is found in category VI, Two-Sided Mutuality. This infrequent description may in part be due to the implicit assumption in this category that the two people communicating are equals. As indicated earlier, such an assumption cannot be made in the present case.

This combination of categories is suggestive. Fathers seem to be the least ready to describe (and perhaps perceive or participate in) communication which represents an exchange between equals when the other communicator is their son. At the same time, fathers described, the most often of all the groups, communication in which one communicator tended to do all or most of the talking and the other tended to do all or most of the listening.

Mothers described Psuedo-Mutuality almost half as often as fathers did. On the other hand, mothers tended to describe communication situations in which an equal relationship between communicators is necessary. This difference between the parents, while not as striking as the similarities of their descriptions, is still suggestive of a possible difference in the quality of the relationship between these mothers and fathers and their adolescent sons.

In summary, parents and adolescents described family communication primarily in terms that indicate they do communicate quite substantially with each other. All three groups are striking for the overall similarity of their descriptions, rather than the differences. When differences are examined, however, they take the following form: adolescents tended to describe slightly more communication incidents which emphasize an active avoidance of communication. Fathers tended to describe incidents which emphasize one-way communication situations. They were least likely to describe situations in which their son is regarded as an equal. Mothers, on the other hand, tended to describe communication in which their sons do play an equal part.

The Number of Subjects in Each Group Describing Each Communication Category

This section provides information on the number of subjects in each group who described at least one incident in each of the different communication categories. The number of incidents a subject described in the same category is not important. In this analysis only the first incident in a category was counted.

TABLE VIII-10

Percentage of Subjects in Each Group Who
Reported One Incident in Each Communication Category

Communication Category	Adolescent	Father	Mother	Father-Both	Mother-Both
	Percentages in Each Group				
I	60.9	21.8	30.4	39.1	43.5
II	82.6	30.4	21.8	47.8	47.8
III	52.2	34.8	26.1	43.5	26.1
IV	100.0	78.3	91.3	100.0	100.0
V	73.9	39.2	65.3	52.2	78.3
VI	21.8	4.3	21.8	17.4	39.1

Table VIII-10 shows that in each group Reactive Mutuality (IV) was described at least once by the largest number of subjects. In the cases of the Adolescent, the Father-Both and Mother-Both groups all the subjects (100%) described at least one example of Reactive Mutuality. This result is similar to the previous analysis where Reactive Mutuality was consistently the most frequently described type of communication. Also similar to the previous analysis for parents is the result that the second largest number of subjects described One-Sided Mutuality. However, there are some differences that emerge from this examination that tend to illuminate some of the previous differences. For example, in the case of the adolescents the category described at least once by the second largest number of subjects (82.6%) is Active Noncommunication (II). Less than half the parents described this category. Also striking is the difference in Category I, Passive Noncommunication, where 60.9% of the adolescents appear and less than half the mothers (43.5%) and one quarter of the fathers (21.8%) are so classed. Previously it was suggested that fathers tended to describe Two-Sided Mutuality only infrequently. In the present analysis it becomes evident that the number of subjects describing this type of communication interaction is the smallest in the case of the fathers, particularly when the "Both" responses are omitted from consideration.

Since the present analysis examines one aspect of the communication descriptions, it is necessary to re-examine the possible relationship between this analysis and the previous one in greater detail. Both the number of responses in the different categories and the number of subjects who described the different categories provide a convenient method for a comparison ranking between the groups.*

TABLE VIII-11

Rank Order Correlation (Spearman ρ)

Correlation Between Rankings Assigned to Number of Responses in Each Communication Category and Number of Subjects Describing Each Category

Group	ρ
Adolescent	.943**
Father	.828
Mother	.871*
Father-Both	.743
Mother-Both	.786

** N=6, p=.01, for a one-tailed test the critical value of ρ =.943.
* N=6, p=.05, for a one-tailed test the critical value of ρ =.829.

The computed correlations were significant ($p < .01$ for adolescents, $p < .05$ for mothers, and $p < .05$ for fathers). When the "Both" responses were added to the mother and father responses the ρ correlations dropped to below the level of significance. Significant correlations in this analysis indicate a relationship between the number of responses in different categories and the number of subjects describing the different categories. Thus, the number of individuals in each group who were denoted as describing different categories produced profiles similar to those derived from the normalized responses for each group respectively. The relationship did not hold when the "Both" responses were added.

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* The categories were ranked on the basis of the number of responses in each communication category and the number of subjects describing each communication category. For the number of responses the highest rank 1 was assigned to the category with the largest percentage of responses. The category with the second highest percentage was assigned the rank of 2 and so on until the category with the least number of responses received the rank of 6. A similar procedure was followed to rank the categories by the number of subjects describing the category. Tied ranks were assigned when the percentages in two categories were equal. The calculations were corrected for tied ranks where this was necessary.

Agreement of Communication Descriptions Provided by Members of the Same Family

In this section the communication descriptions of each family as a unit will be examined. The analysis thus far has presented communication patterns for each group separately. The present analysis examines the dyad relations across the three groups for each family.

The dyads were developed in accord with family profiles. A hypothetical profile may look like the following: Adolescent A described 8 communication incidents. Four of these incidents were scored as Type IV, three as Type II, and one as Type V. His scores would be transformed into percentages. Thus, 50% of his responses are Type IV, 37.5% are Type II and 12.5% are Type V. These percentages can, in turn, be used as a measure of agreement expressed as the percentage of overlap for two communicators' normalized distributions. For example, the hypothetical father of the previously described adolescent may have produced the following profile: 20% of his responses are Type I, 40% are Type III and 60% are Type IV. Where the two distributions overlap, the two subjects are assumed to be in agreement.[9] In the present example the two profiles overlap only in Type IV communication. The percentage of overlap is 50%. Thus, for the Father-Adolescent dyad the degree of agreement is 50%.

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[9] In the present analysis, the question of the comparability of the percentages is not considered.

A similar procedure was followed for each family grouping.

Ten families show the highest percentages of agreement in the Mother-Adolescent dyads. Six families show the highest percentages of agreement in the Mother-Father dyads, and 5 families show their highest agreement between the Father-Adolescent dyads. Thus Mother-Adolescent agreement appears to be the most frequent in this analysis.[10] Such agreement may be due to several factors: Since the mother is usually home more than the father, the mother has more opportunity to speak to the adolescent and so be more familiar with or conscious of the whole process of communication. Also, there is some evidence to suggest that mothers and adolescents may be more sensitive and perceptive in family relations than fathers (Meissner, 1965; Kvaraceus, 1966). The sensitivity and perceptiveness of the mothers may account in part for their ability to describe incidents that were in greater agreement with their adolescent sons than were the fathers.[11] At the same time, it is interesting to note that this finding clashes to some extent with at least a popularized version of psychoanalytic theory. That theory would have suggested that mothers and sons might be expected to manifest aspects of a deep psychological conflict during the recapitulation of the so-called family romance reappearing during adolescence. The present findings suggest a certain rapport or relatedness which allows for the degree of agreement observed between mothers and sons in this study.

Turning from the comparisons of the highest percentages of agreement to comparisons between the dyads taken two at a time, the same trend is repeated.

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[10] The "Both" scores were not used in this analysis because they tend to obscure dyad relationships.

[11] In the present study mothers were described by adolescents as taking an understanding position much more frequently than fathers.

When comparing Mother-Adolescent agreement and Father-Adolescent agreement, with the "Both" scores omitted from the parent responses, Mother-Adolescent agreement is higher than Father-Adolescent agreement in 12 families, and Father-Adolescent agreement is higher than Mother-Adolescent agreement in 7 families. In 3 families Father-Adolescent agreement equals Mother-Adolescent agreement.[12]

The average agreement between mothers including the "Both" scores and adolescents was approximately 65%. Agreement ranges from a low of 16% to a high of 90%. Thirteen Mother-Adolescent dyads show between 50% and 75% agreement. Eight Mother-Adolescent dyads show between 76% and 90% agreement, and 2 Mother-Adolescent dyads show less than 50% agreement.

The average agreement between fathers including the "Both" scores and adolescents is also 65%. Agreement ranges from a low of 16% to a high of 90%. Fifteen Father-Adolescent dyads show between 50% and 75% agreement. Five Father-Adolescent dyads show between 76% and 90% agreement, and 3 Father-Adolescent dyads show less than 50% agreement.

The average agreement between all three family members where the parent scores include the "Both" scores is 57%. Agreement ranges from a low of 11% to a high of 86%. Seventeen families show between 50% and 75% agreement between all three family members. Two families agree between 76% and 86%, and 4 families agree less than 50%.*

Agreement between the communication descriptions of family members can also be examined for evidence of reciprocity. For example is high agreement or low agreement and low agreement a general finding for all members of the same family, or is there usually high agreement in one dyad and low agreement in another in the same family. For the entire group the percentage of agreement for each dyad was compared with the percentage of agreement for other dyads in the same family using a product moment correlation coefficient. The results are presented in Table VIII-12.

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[12] One family is not included in this analysis because no independent responses were recorded for either parent. When "Both" scores are added to the Mother and Father scores in ascertaining the percentage of overlap, Mother-Adolescent agreement is higher than Father-Adolescent agreement in 10 families and Father-Adolescent agreement is higher than Mother-Adolescent agreement in 10 families. In 3 families Mother-Adolescent agreement equals Father-Adolescent agreement.

* A similar analysis was made excluding the "Both" scores. The results were so similar to the previous analysis that they are not included here.

TABLE VIII-12

CORRELATIONS BETWEEN FAMILY DYAD AGREEMENTS

Comparison	r
Father-Adolescent-Father-Mother	.887*
Adolescent-Father - Adolescent-Mother	.660*
Mother-Adolescent-Mother-Father	.485**
- -	- - - -
Father (Both)-Adolescent - Father (Both)-Mother (Both)	.245≠
Adolescent-Father (Both) - Adolescent-Mother (Both)	.799*
Mother (Both)-Adolescent - Mother (Both) - Father (Both)	.402≠

* Significant at $\geq$ .01 level using a two-tailed test, df=21.
** Significant at $>$ .02 level using a two-tailed test, df=21.
≠ Correlation not significant.

The first 3 coefficients are based on the independent responses of fathers and mothers. The "Both" responses were not included in the calculation of the percentages of agreement. These correlations strongly suggest that agreement or disagreement among family members is a family related phenomenon rather than specific to a particular dyad. For example, adolescents tended to agree with both parents or disagree with both of them, not the reverse, in their descriptions of family communication. This trend is also seen for either parent and the other two members of the family. Furthermore, the association between the degree of agreement for fathers with adolescents and mothers is the highest.

This result might suggest that fathers play a very important role in the family communication, in spite of many protestations to the contrary. The communication behavior of fathers may be highly consistent, whether they are addressing the mother or the adolescent. Thus, if the father's description agrees with one it tends also to agree with the other, and if that description disagrees with one it tends to disagree with the other. On the other hand, if a situation is obvious enough for a father to describe it is highly likely that mothers and adolescents will be able to describe the same type of communication too.

When the "Both" scores were included in the parent agreement scores, the relationship of the adolescents to both parents is unchanged, except that the relationship is stronger due to the duplication of responses in both dyads. Adolescents as a group tend to agree with both parents or disagree with both parents in their descriptions of family communication. Thus, for adolescents agreement on the type of communication described seems to be a family related phenomenon, whereas for the parents this same conclusion cannot be drawn.

When the "Both" scores were included and parent agreement with the other parent and the adolescent in the family was compared, the correlations fail dramatically. These correlations suggest that the agreement of both parents with each other and with the adolescent are independent.[13]

This finding may be explained in one of the following ways: parents may well be in more accord with each other than either one of them is with their adolescent when describing the family communication; or parent agreement with each other may not be as vulnerable to variation when compared to parent-adolescent agreement. In either case the result would be the same. Agreement between the parents would be independent of agreement between either parent and the adolescent.

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[13] A difficult research question emerges here. Which parent score is the more accurate portrayal of parent communication descriptions? One way of checking this result is to use a different methodology. If the interview rather than direct observation is the method of choice, each parent might be interviewed separately rather than together as in the present study.

5

Agreement When Communication Descriptions Are Characterized

Thus far the interview data has been treated by maintaining a profile, or a whole array of communication categories, for each subject in the study, and discussing these profiles in terms of the entire group. A profile is cumbersome to handle particularly when comparisons between subjects are of interest. Such comparisons are more easily made when a communication profile can be characterized by a single score. On the other hand, attempting to characterize descriptions by one category seems somewhat artificial. The communication categories used are not on a continuum, and therefore, an average or a median of all the categories described is not meaningful. Using the mode to assign a subject to a particular communication category on the assumption that a subject described most frequently that type of communication which he or others around him use most often seems reasonable. Yet, this alternative presents a problem. In the majority of cases Reactive Mutuality (Type IV) was the most frequently described of all the different types of communication, so that using the mode provides no way of differentiating the subjects. However, since Reactive Mutuality is common to all the subjects describing communication incidents, another way of using the information is to regard this type of communication as the baseline of family communication and to focus attention on the second most frequently described type of communication.[14]

With the modal measure as a method to characterize a subject's communication after Type IV has been removed, the resulting dispersion of subjects by category is presented in Table 13. Using the second most frequently described category to characterize a subject's communication descriptions, did not produce noticeable differences between the three groups. In fact, the present distributions are striking for their similarities more than for their differences. Since so few cases are available, it is difficult to say whether this

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[14] In the present analysis the question of the comparability of the percentages is not considered.

TABLE VIII-13

NUMBER OF SUBJECTS ASSIGNED TO EACH COMMUNICATION CATEGORY ACCORDING TO MODAL FREQUENCY

	Communication Categories							
Group	I	II	III	IV†	V	VI	Ties	Totals
Adolescent	5	4	2	0	5	1	6	23
Father	4	1	3	3	5	1	4	21*
Mother	4	1	0	6	6	0	5	22*

† Subjects who do not describe any communication category except Type IV are assigned to this category.

* The frequencies in this table are based on Mother and Father responses only. Both scores are not included. Some parents did not produce any independent responses, and in that case they were excluded from the present summary.

observation is a real effect or not. To handle this problem of small cell frequencies, the categories were merged in the following way: Father and Mother categories were combined into a Parent category, and the communication categories were collapsed into four groups: No Communication (Types I and II), One-Way Communication (Types III and IV)[15], Two-Way Communication (Types V and VI), and a Mixed category.[16] The computed χ^2 using frequencies associated with these new cell sizes indicates that there is no relation between who described the family communication (parents or adolescent) and the type of communication that was described.[17]

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[15] Type IV communication is considered one-way communication on the grounds that the communication described primarily entails presenting one's own point of view with little regard to where the other person is.

[16] A Mixed category indicates the second modal frequency is tied between two or more categories and cannot be assigned to a group because the tied frequencies are in different groups.

[17] The experimental $\chi^2 = 4.53$, df=3. The critical value of chi square at the .05 level of significance is 7.82. When the Parent score is a combination of Father Mother and Both descriptions, the experimental $\chi^2 = 1.60$, df=3. The type of communication described seems to be independent of which family member described it.

If the communication categories are collapsed further so that each subject can only be assigned to one of three categories, a No Communication Category (Types I and II), a Communication Category (Types III through VI) and a Mixed Category, the results are shown in Table VIII-14. Nine adolescents were assigned to the No Communication Category, 9 to the Communication Category and 5 to the Mixed Category. The parents with and without the inclusion of the "Both" category were assigned to the Communication Category more than twice as frequently as they were assigned to the No Communication Category (see Table VIII-14). A χ^2 test shows that these trends are not sufficiently strong to show a significant relationship between the source of a description (parent or adolescent) and the "characteristic" type of communication assigned to a subject on the basis of the type of communication he described the second most frequently.[18]

TABLE VIII-14

NUMBER OF SUBJECTS ASSIGNED TO COMBINED COMMUNICATION CATEGORIES ACCORDING TO MODAL FREQUENCY

Group	No Communication I & II	Communication III-VI	Mixed
Adolescent	9	9	5
Parent	10	27	6
Parent and Both	12	24	10

These results suggest that each subject described the communication situation in a way that is free from biases attributable to his respective peer group. A conclusion which might be drawn from these results is that parents and adolescents as groups do not differ in the types of communication assigned to them and that the similarities between the two groups may be accounted for by the similarities of parents and adolescents from the same family.

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[18] When the "Both" score is omitted from the parent responses, the experimental χ^2=3.40, df=2. When the "Both" score is included in the parent responses, the experimental χ^2=1.40, df=2. The critical value of chi square required for significance at the .05 level is 5.99.

However, inspection of the code numbers of adolescents and their parents indicated that the subjects rated in the same categories do not come from the same families. Thus a different conclusion appears logical. As a group adolescents and parents are assigned to the same communication categories. However, when these groups are broken down to families, the adolescent and parents in the same family may differ to a large extent in their assigned characteristic type of communication. Presumably all family members were describing the same communication system, therefore it seems reasonable to expect their assignment to "characteristic communication types" to agree to a larger extent than the data indicate. The lack of agreement can be due to the arbitrary manner in which each member was assigned to a particular communication category. By using the second most frequently described category to characterize a subject, a large amount of information was disregarded. On the other hand, the difference observed may be due to major factors suggested in the original communication profiles as well as in the trends observed using the second modal frequency to characterize a subject's communication. That is, adolescents tended to describe noncommunication categories to a larger extent than do the parents.

SUMMARY

Using a set of open-ended interviews separately with parents and their sons in which the subjects described aspects of communication, a six level classification system was developed to categorize the responses. The reliability of the scoring system was indicated as well as the procedures involved assigning the scores. The results indicated that adolescent boys use a broader array of communication styles than either parents. Only 1/3 of the boys used three or fewer categories while the proportions for the parents were 86% for fathers and 63% for mothers. However, all groups (boys, parents in concert or separately) were rated as using Category IV, Reactive Mutuality, most frequently. The extensive use of this category suggests that in general parents and their sons do communicate quite substantially. Over one-half of all the communication incidents scored were rated in this category which designates communication as a two way exchange of information even though the originator is primarily concerned with presenting his own view. While this finding indicates similarities across the family members, some notable differences also appeared. Fathers, particularly, seemed to use the fewest categories, were lowest in the use of the most frequent category (e.g., Reactive Mutuality), were lowest in the use of category that implies understanding the other's point of view, and were highest of the three groups in the use of the category that denotes communication as limited to presenting one's own view - Psuedo-Mutuality defined as a one-way exchange of information. The boys were notable not only in their greater use of categories but also because many of their incidents were classed as either active or passive non-communication. Almost all the boys in the sample described at least one incident in the non-communication categories while less than half of the parents were rated in those categories.

In general, at least in a suburban school setting, it appears that sons communicate to a greater degree and more openly with their mothers than with their fathers. Because of the limits of the research investigation no comparative data from the urban or from the private school was available. There is need for substantial research in this general area, as well as further analysis of the possible significance of different patterns and styles of communication within families.

PARENT COMMUNICATIONS INTERVIEW

I am part of a research team interviewing students in the 11th grade in different schools.

We have also been talking with the parents of these students about what it's like to discuss certain issues with an adolescent.

Since we are interested in what parents in general think about these things, your identity will be kept confidential. When we discuss our study, we will only discuss the results and no one will know who you are. What you say here today will not be given to anybody in the school or in your community.

I am going to take notes as we talk so that I'll be able to remember what you think about these things.

Respondent:	Sample Code Number:
	Date of Interview:
Mother's Education:	Father's Education:
Mother's Occupation:	Father's Occupation:

COMMUNICATIONS INTERVIEW VIII-2 Code No.____________________

As indicated in our letter to you, we have been talking with many parents about what it's like to communicate with an adolescent son.

1) What is it like in your family?

a) what kinds of things do you find it important to discuss with your son (Example: college, curfews, car, etc.)?

b) do you find your son a willing participant, reluctant, disinterested?

does he ever broach topics or do you have to initiate them, or both?

are there certain topics that you initiate that you feel he should introduce on his own, but somehow he just doesn't?

why do you think he doesn't?

2) Can you describe a typical discussion situation - like when a decision has to get made? Maybe you can recall an actual discussion (curfew, college or job, use of car, etc.). What's that like?

- - - - - - - - - - - - - - - - -

3) What happens when there is a difference of opinion? (Example: curfew, allowance, car)?

Is it discussed? How?

How is it usually worked out? (Example: parents have final say, compromise, etc.)?

- - - - - - - - - - - - - - - - -

4) How would you describe your son? (Individual answers from Father and Mother.)

How would he describe you?

How would he describe himself?

How would you describe yourselves?

- - - - - - - - - - - - - - - - -

5) How would you characterize your communication with your son in general?

(Examples: good in all area, in some and not in others, not good at all, unnecessary at present time, etc.).

- - - - - - - - - - - - - - - - -

6) How would you wish it to be different (if not satisfied)?

Are there any ways in which you would wish it to be different (if satisfied)?

COMMUNICATIONS INTERVIEW VIII-3 Code No.__________________

7) Do you find there are particular areas that are easier to talk with your son about than others?

What are these?

- -

8) What are the difficult areas?

- -

9) What is the difference between these two areas as you see it?

- -

10) Do you feel your son can understand your point of view when you talk to him? Does he seem to understand one of you better than the other?

11) Do you feel you understand his point of view? How do you try to achieve this?

Mo.

Fa.

12) Do you think it's useful to understand his point of view? In what way?

13) Do you think in general you could pinpoint his point of view? (Generally same, varies by topic, etc.)

14) How would you compare the way you talk with your son, with the way your parents talked to you at this age? How is it similar? How different?

COMMUNICATIONS INTERVIEW VIII-4 Code No.________________

15) How would you feel about discussing the kinds of things we've talked about today directly with your son. Why? Have you ever done so? What do you feel such a discussion might/has accomplish(ed), if anything?

[The same general format was followed in the interview with the adolescent boys.]

CHAPTER VIII - Appendix B

MANUAL FOR RATING COMMUNICATION INTERVIEWS

GENERAL COMMENTS

The interview is divided into four sections: (1) a General Statement of what communication is like; (2) a description of what a Discussion is like; (3) a description of what a Difference of Opinion is like; and (sometimes) (4) a description of what Questioning is like. These subdivisions are areas of convenience, ways of getting the subjects to think about what communication is like in their family. For that reason each of these areas has been further divided into one or more communication incidents. As many as 14 and as few as 0 incidents may be found under any one of these main subdivisions. The numbered communication incidents are the data to be scored.

Some of these numbered incidents will focus on the subject's (adolescent or parent(s)) own behavior. Others will focus on the behavior of the person or persons with whom he is communicating. All of these incidents are to be scored, and no differentiation between a self-description or a description of the other should be made.

In the PARENT INTERVIEW, however, before scoring an incident, indicate who the description belongs to; that is, who made the description: Father, Mother or Both. A statement is to be attributed solely to the person who makes it when the other person does not seem involved in its communication to the interviewer.

Father - (scored as Fa)

The father makes a scorable statement describing family communication, and the mother does not enter into the interview discussion at all at this point. Father may describe a communication incident that takes place between the mother and son. The score is still attributed to Father in the absence of any information from the Mother.

Mother - (scored as Mo)

The mother makes a scorable statement describing family communication, and the father does not enter into the interview discussion at all at this point. Mother may describe a communication incident that takes place between father and son. The score is still attributed to Mother in the absence of any information from the Father.

Both - (scored as B)

Three different situations may obtain, any one of which is a sufficient condition to assign a score of Both:

(1) Either parent says, "We do x, y and z." Here the we is adequate to define the situation for both. However, if a parent uses the "we" phrase and the other parent negates or contradicts the statement, this "we" phrase should be disregarded, and the statement attributed solely to the parent who made it.

(2) The Both category can also be used when both parents combine to tell one story or incident, each clarifying or additing to the other's statement.

(3) This category can also be assigned when one parent does the talking and the other remains essentially silent, giving some indication of agreement or assent only intermittently. If the more pervasive silence cannot be interpreted as agreement or assent, assign to the parent doing the talking.

COMMUNICATION CATEGORIES

The classification system contains six categories. Assign one category only to a communication incident. If you cannot make up your mind between two categories, indicate both choices with some appropriate remarks under the Comment Column. Do not use this method unless absolutely necessary.

Each communication incident should be scored independently. Do not let previous incidents "color" the incident under scrutiny.

The Comment Column on the tabulation sheets may also be used at your discretion to indicate questions, confusions or anything else regarding the categories or the communication incidents.

A definition of the categories plus some examples of each follow:

Type I (score = 1)

Passive non-communication - A bare minimum of verbal communication or responsiveness is reported. Little or no description of what communication is like is available. Usually an absence of communication is described or reasons for not getting involved are given. This absence of communication, the lack of involvement between potential communicators seems to be taken for granted. It is merely the "way the family operates," a general procedure. There is a sense of passivity about the non-communication; that is, communication is neither actively sought nor actively avoided. Somehow it just does not take place.

Examples:

Communication occurs due to some external or third factor beyond parents or adolescent; communication occurs only when there is a problem, or only as a response to very talkative siblings.

> "We just don't do that much talking."
>
> "There's no reason not to. We just don't."
>
> "I don't have anything important enough to talk about."
>
> "My father just doesn't get involved. He just doesn't say much."
>
> "If they bring it up, I'll discuss it, but I don't talk too much otherwise."
>
> "You just don't have to ask questions to find out what's going on."
>
> "That subject just doesn't come up in our family."
>
> "If it's something that I can take care of, why bother them with it?"

Type II (score = 2)

Communication is consciously, deliberately or actively avoided.

1) With Physical Separation

The parent or adolescent is never home.
Different schedules come into existence.

2) Without Physical Separation

Parents and adolescents may find themselves at home, but discussion is still actively discouraged, prevented or avoided by:

a) General Avoidance

Avoidance permeates all of family life. Parents or adolescents set the situation up so that communication will not have to take place: an extra car is bought; an external Authority is called upon; a general principle is mechanically applied; or no information is available and therefore the subject can not be discussed.

Examples:

"They don't know what goes on so I don't bother to talk to them."

"We teach our kids to think for themselves, so we don't like to go into these things in too much detail."

"My parents are never home when I want to talk about it, so I never get the chance."

b) Specific Avoidance

Avoidance behavior is circumscribed, used only in particular situations: when specific topics are broached or specific ways or communicating are used.

Examples:

"We know there are certain things he doesn't want to talk about so we don't."

"Questioning makes him so mad, we just don't do it."

"I know what they'll say, so why ask?"

No differentiation need be made in scoring the different avoidance behaviors outlined above.

CAUTIONS:

1. Understanding may seem to be implied in some of the avoidance behavior. This understanding is based on past experience, and, therefore, differs from the understanding based on anticipation and empathy described in communication Types V and VI.

2. Avoidance is actual communication behavior, not the content of a response. For example, a parent might ask, "Where are you going?" and the adolescent may answer, "Out." Among other things, this answer may be an attempt by the adolescent to avoid answering his parent's question, but it is not avoidance of communication interactions. The adolescent is responding to his parent, however inadequate the response may be.

Type III (score = 3)

No interaction between communicators takes place. One communicator produces his message in the presence of another, but there's no effort to relate this communication to the other. In other words, a monologue is produced by one or both communicators; that is, there is

(1) no evidence of any response or interaction between communicators

(2) no sense of relationship or relatedness in what the communicators are saying.

There are several forms this type of communication may take.

1) Both communicators produce monologues, discourse or orations on different subjects. Each of these communication efforts requires no response from or reaction to the other.

Example: Son: Boy, we had a great basketball practice today.

Parent: It's getting late. Supper will be ruined. Get ready for dinner.

Son: Some varsity players from B.C. came down to teach us in small groups.

Parent: Your father should be home soon now. Go wash up.

2) Both communicators produce monologues or lecture on the same subject. However, since each communicator responds only to his own communication, each may read a different meaning into the situation. A discrepancy may be experienced, but its exact nature goes unclarified and unexamined. One communicator may be able to listen to the other, but there is still no response or reaction to the other's communication.

Examples: "He tells us how he spends his time, but I don't know whether to believe him or not."

"I tell him just what I told the other kids, but I think he takes it different than they do."

3) Two communicators are present, and while one talks, the other stands by silent, perhaps not even listening.

Examples: "When he talks, it's like a lecture. I don't say anything."

"I give him my ideas, but I don't know how he takes it. He never says anything back."

Type IV (score = 4)

Two people talk to one another. The communicators interact, react or respond to one another. A dialogue occurs. This category differs from Type III in that each communicator uses the previous communication from the other to produce his own response.

Each communicator's main concern is with presenting his own point of view, making his own questions, demands, judgments known. No attempt is made to understand how the other communicator may accept the message or anticipate how he may feel, what his needs are. Messages are somewhat circumscribed, a reaction or response to the immediately preceding communication from the other speaker.

The content of the exchanges is factual. The inner thoughts and feelings of the communicator are not conveyed.

Examples:

Information giving, reporting

"I tell them the facts."
"I tell them what happened during the day."

Opinion giving, advicing, suggesting

"We tell him our views."
"We make suggestions."
"They give me their opinion."

Asking and answering questions

"I ask him questions."
"We prod him until he tells us what's wrong."
"I don't volunteer information, but if they ask me a question, I'll answer it."

Limiting, controlling, judging, consent or agreement

"They tell me what I can and can't do."
"They tell me what to do."
"I tell them what I want. They say yes or no."

Arguing

"We argue."
"I tell them. They tell me, and it gets louder and louder."

Some subjects give excerpts of dialogue from their family:

Son: Can I use the car?
Parent: What for?
Son: Just going around.
Parent: Well, you can't take the car and just drive around.
Son: Maybe I'll go over to someone's house.

Parent: How was your day?
Son: All right.
Parent: What happened?
Son: Nothing.

(Note: This example is not Type II.)

Type V (score = 5)

Two types of behavior fall into this category. The presence of either one is sufficient to score a communication incident as Type V.

1) One (and only one) communicator tries to understand and respond to the other communicator's point of view. In Type IV communication each communicator is mainly concerned with presenting hiw own point of view. The key to Type V communication is the recognition of and response to internal thoughts and feelings, the position, of the other communicator.

Understanding here means trying to see things from the other communicator's position. One communicator puts himself in the other's shoes or infers how the other might feel, what might motivate him to say what he says. Seeing the other person's point of view does not necessarily mean that there is agreement on the topic under discussion.

Example:

"We see his point of view and try to consider it when we have to come to some judgment."

"He takes in our side of the story before he makes his decision."

Example of Dialogue:

Son: I know I came in late, but we were having fun, and I just forgot what time it was.

Parent: Well, I'll let it go this time cause I can see how you might lose track of time, but I hope you won't make a habit of this.

Caution: This category cannot be used if the understanding is discussed after the fact rather than being a part of the communicative exchange that is described. For example, a parent may describe a communication situation in which little understanding is demonstrated. At the same time this incident is reported to the interviewer the parent may show a great understanding regarding what was going on with the adolescent. This "post facto" understanding is not the same as understanding demonstrated during the actual communication incident and cannot be classified using the present system.

2) Self-disclosure, or the willingness of a person to share his internal thoughts and feelings is the second type of communication behavior that is assigned to category V. This self-disclosure differs from Type IV in that it includes the internal thoughts and feelings of the person. It is not merely a reportage of external events or things that have happened during the day.

Examples:

"I feel better if I tell them what's on my mind."
"When I'm upset I can't help but tell them."

Example of Dialogue:

Parent: You look like you had a hard day.

Son: A teacher in school embarrassed me.

Type VI (score = 6)

Two types of communication behavior fall into this category.

1) In Type VI the effort to understand the other's point of view is described for both communicators. In Type V communication only one communicator tries to understand the other's point of view.

Again, understanding is not equivalent or synonymous with agreement on outcome. Understanding is the effort to put one's self in the other's shoes, see things from his vantage point. There is a sense of equality in the communication relationship that may be implied or stated explicitly.

Examples:

"He tries to see our point of view, and that's all we can really ask of him." (With the implication the parents try to see the adolescent's point of view.)

"My parents know that most teenagers try to get away with whatever they can. It's just part of growing up, but they still feel we should have more self-control and responsibility."

"They'll understand why I lied to them, and they won't be mad."

"He knew his own mind, but still he wanted to hear our feelings in the matter, knowing we wouldn't interfere with his decision."

Example of Dialogue:

Parent: You may want to do that job the way you started it, but in my opinion you might save yourself some time by starting at this end.

Son: I didn't think of that. I see what you mean, but since I'm not in any hurry, I think I'll finish it this way.

2) One communicator may try to understand the other, and at the same time may share his own private thoughts and feelings. The same communicator evidences both of these behaviors in a single communication incident.

Example:

"I knew my parents would be disappointed in what I did, but I didn't feel too good about it either, and I told them that."

CHAPTER IX

THE ADOLESCENT IN THE SECONDARY SCHOOL: A DISCUSSION OF THE FINDINGS

It is, of course, difficult to summarize in one chapter the results of an exploratory study. However, as we look across all of the data concerning the pupils' perception of school, their attitudes toward learning, and their styles in making decisions, we find that certain major themes emerge rather clearly. We should say at the outset that the purpose of the study was to talk with students about these matters in the natural setting of the school, and that we wanted to assess what we have called the school's "hidden curriculum," rather than more formal aspects of school such as would be contained in an objective study of curriculum content, for example. Instead, we sought information about the motivations of students which make up the atmosphere for learning in school. We considered the formation of enduring sets of attitudes towards knowledge, toward the point and "payoff" of learning, as perhaps the most crucial outcome of schooling, and thus we wanted to gain as complete a picture as possible of these dimensions.*

Also, as we indicated in the introduction, we deliberately chose three different types of schools for the comparison. One way to find school differences is to study "extremes." What we had not anticipated was that differences in the learning atmosphere in the schools selected would so clearly reflect differences in social class and community priorities for the school and its students. Certainly the urban and suburban public schools that we selected were chosen for their representativeness as to a particular type of school. The private school, of course, was selected because it afforded us an opportunity to study pupils from one end of the social class continuum.

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* We would now additionally study the student's attitude toward his particular academic status in the school (e.g., his curriculum "level") and toward himself as a learner as contributing significantly to what he learns formally, as well as being an important factor in the hidden curriculum per se.

In this respect the picture that emerged from our data can only be understood if we review the different conceptions of knowledge that are implicit in the three schools and communities studied. The question we studied became, in fact, what is it that the community and its school system wants pupils to learn? Thus, for example, if the educational objective is for children to develop an attitude which holds learning as a process of mastering what is already known, of following another's interpretation as to the meaning of learning material, and to stand in the position of obedience to the managers of such a learning process, then one of our schools could be rated as successfully accomplishing this goal. In the urban school, education essentially is a means to a school learning certificate, a job, to upward mobility economically. This educational ideal and the school and its staff has general credibility for a majority of its students. If, on the other hand, the community's view is that learning is important for its extrinsic reward value, or that achievement is important due to its visible dimensions, then one of the other schools in the study would be considered successful in bringing about these attitudes toward knowledge. In fact, one might even generalize that in the city school there is a triumph for obedience in thinking, while in the suburban public school the victory is one of academic achievement over intrinsic interest in learning. In short, the study suggests that a parallel and powerful relationship exists between the community and its agent - the schools. This relationship has been found before, but not so clearly in regard to the hidden curriculum of educational aspirations or priorities both in the community and in the school, as these are transmitted to the students.

Similarly, we started this research with the idea of the adolescent sub-culture as a unitary phenomenon, since Coleman's main findings had been that the adolescent sub-culture was uniform across a series of what he considered to be quite different schools. In fact, Coleman had taken this sub-culture as a reflection of an adult culture that was also uniform when he noted, "it is as if the adolescent culture is a Coney Island mirror which throws back a reflected adult society in a distorted but recognizable image." Our own findings seem to be more an indication of a pluralistic society in which different adolescent sub-cultures are reflecting different adult communities. Thus in the working class environment, where but few think in terms of social mobility and rather most think in terms of reaching an economic level slightly above that achieved by their parents, we find the school learning atmosphere to be characterized by conformity, acceptance, obedience, and little, if any, cynicism, conflict or questioning of the educational ideals. Some of the young men in the urban school perhaps made this point most dramatically in the open ended interviews when they said that they wanted jobs that would be somewhat "better" than the occupations of their parents - jobs that would not be quite as physically demanding, jobs that would not end up "breaking your back." In the suburban schools, of course, there was a heavy overtone of social mobility - of education as a sine qua non to social and economic status. At the same time there was a strong undercurrent of bitterness towards and sarcasm concerning the atmosphere in the school. In fact, it appeared to us as if academic achievement itself had become the major sanction for control of these pupils, so that the individual's identity indeed might be defined by the outcome of the academic competition. It was only in the small private school, under very special circumstances, in which pupils indicated an intrinsic intellectual interest in learning and inquiry and a feeling of community with their tutors.

Also, it was only in such circumstances that independence in thought seemed to predominate as a mode.

Thus we found different schools reflecting different communities. The schools were dissimilar in educational objectives, in the perceived quality of adults participating in them, in their de facto social organization and in the climate of student ideology toward education produced. In contrast to Coleman, we also found different adolescents. The composite profiles of their attitudes toward school and education presented in Chapter VI are dramatically different. These adolescents are not alike - and their differences are predictable by school and social class.

Of course the limits of our research design begin to appear rather clearly as we view the findings. Certainly the most important question that we cannot answer concerns the relative effectiveness of the school in promoting or indeed in developing such sets of attitudes as we uncovered. We do not know, for example, the extent to which the pupils when they entered private school already were exhibiting such attitudes of independence in thought as we picked up from an 11th grade group of pupils. The cross-sectional nature of our research means we can only speculate on this very important question. On the other hand, recent research, particularly the study on Equality of Educational Opportunity, seems to suggest that the social class background of the pupils bears a greater relationship to learning than do other factors such as student-teacher ratio, library books, or other similar dimensions. (It is also important to note in this regard that all but a tiny proportion of adolescents attend schools that are similar to the two public schools in our study.)

In summary, this has been a study of the perception and attitudes of students in regard to school and learning, an attempt to assess the motives of secondary school pupils. In this way we have tried to understand the symbolic importance or unimportance of schooling as it confronts adolescents with certain tasks and demands. Reiseman has noted that in the past just the physical arrangements of a school could indicate its symbolic unimportance. He points out that anyone could see the irrelevance of what went on in most schools. The walls were decorated with the ruins of Pompeii and the bust of Caesar, with such etchings and statues obviously signifying the dead forms of classical education. Even though these visible aspects have now disappeared from all but a few public schools, the not-so-visible aspects raise some rather dramatic questions. Current school curricula are designed to promote subject matter achievement, the ability to think - intellectual "learning." Yet, if we hold these broad objectives up to our findings, the incongruity is striking. It would be an intolerable digression at this point to spend a great deal of time discussing either the goals of teaching or the goals of counseling. Nonetheless, a basic objective of formal instruction is held to be the development of the student's process of thinking and inquiry. So too, in the case of guidance counseling, which ostensibly has been developed in schools to promote self-knowledge, self-direction or the capacity to make decisions for oneself. For the public schools, there is little evidence in our findings that either of these objectives are significantly perceived or learned by the pupils themselves. How do they see the school and its purposes? Obviously, in very different ways. School for the urban high school girls is a means to a job. For the private school girl, school is a means to intellectual activity. In general, the adolescents we talked to see school as a means or an instrument: to a job or college. School for them is also a social institution (which they may like or dislike). But with the exception of the private school students, most adolescents do not see school as an intellectual institution. Indeed a taste for intellectual activity as an end in itself is exotic.

If we turn for a moment from how the pupils in the public school view learning to the question of how they make decisions, we find further evidence to question the effect of schooling. The majority of pupils in both the urban and suburban pupil schools did not make their own decisions but rather left the process up to some outside force - either a person or a kind of fatalistic acceptance of the environment. In other words at a time close to the end of formal schooling most of the pupils looked outside themselves for directives and guidance. They did not view the process of decision-making as subject to their own control, agency or personal initiative. Personal efficacy and control did not appear as a major variable for the majority of public school pupils when they discussed decision-making. The significance of this finding increases if we remember one of the major conclusions from the recent study Equality of Educational Opportunity (Washington: U. S. Government Printing Office, 1966). After examining a multitude of variables effecting school performance, the study concluded that attitudes of student interest in school, self-concept and a sense of environment control were the most significant. In fact, the one that was singled out for particular importance was, in the words of the report - "The attitude most important is the extent to which an individual feels he has some control over his own destiny." If students do not manifest an ability to think for themselves nor approach decision-making on the basis of their own initiative, then what they do learn in school may be of little consequence.

From another standpoint, these findings on the gap between the conventional myths about the school and its intellectual purposes and the pupil's actual motives have, we feel, broad implications for school reform. The findings certainly indicate that proposed change must consider (and probably reformulate) the total process of schooling. Short-run or partial solutions are bound to fail. To change one aspect of the existing institution would not necessarily solve anything. For example, if we increased the counselor student ratio by dramatic proportions, this would not necessarily have any positive effect since it may accept as a given everything except the guidance program in a school.

Are high school students, themselves, agents of change in the institution, as is increasingly true at the college level? Our findings suggest that most adolescents, intellectually at least, are not particularly critical of the educational ideals which shape their school experience. The voices from the back of the classroom are not those of revolutionaries. A small proportion of students, consistent with the dropout figures, indicate that they have no reason to stay. But the majority seem impotent or to have sold out (in many cases knowledgeably) to the system. They accept parent and teacher rationalizations for staying and performing in school. This is not surprising - parent and teacher voices are very powerful, and are magnified by the success of all three schools in delivering on the different aspirations held for them. Students may chafe, but they are significantly influenced in what they value, think and do by the external system and by the hidden curriculum. They make many criticisms of the particular school; with the exception of the independent school students, however, the voices from the back of the classroom are not for reform of educational ideals.

Perhaps this general point about educational reform can be made more explicit. Let us assume for a moment one hypothetical, if romantic, objective for school reform: active intellectual inquiry by students, learning to think rather than learning facts; student self-actualization - i.e., opportunities for the individual to define and express himself intellectually, aesthetically, socially, personally; deliberate ethical education, etc. If our inferences about what we found are correct, it is evident that we could not implement this kind of education in either the city or suburban high school we studied. We doubt that the community would understand, or want this kind of educational reform. Similarly, we are uncertain that the students would understand, or want such changes. This is simply another way of saying that the problem of school reform is the problem of social reform; that parents and the society they represent and our public school adolescents are by and large conservative and opposed to educational reform.

Perhaps it is unfair to use the absence of intrinsic interest in learning as indictment of the public school. Certainly studies have indicated that there is little in the way of independent intellectual inquiry at levels beyond high school. For example, a recent study by Bolton and Kammeyer (1968) found that student life at the college level was almost wholly devoid of intellectual content and value.* Similarly some of the college characteristics studies that have been done in the recent past, have indicated that from fifteen to twenty percent only of the students in college manifest learning as their primary motivation for attendance - (this being far down the list when compared with such extrinsic motives as economic benefit or social activities). However, if we look at the other end of the educational system, there seems to be theory and some evidence that children at fairly young ages indicate rather strong independent interests in learning. For example, there is substantial theoretical evidence from many child development psychologists strongly suggesting that a need to inquire, to learn, to discover and to master is almost a ubiquitous urge in all children. Equally significant and perhaps more to the point of our research findings may be the emerging corollary to the child's ubiquitous urge to manipulate, inquire and learn. Increasing evidence from research on culturally deprived, poor black and white children indicates that the capacity to learn, to explore and to master soon atrophies in an unhealthy and inappropriately responsive environment.* The extreme case may illumine the regular instance. The school paradoxically may inhibit the child's capacity toward learning and mastery, not so dramatically as in a city slum, yet in the long run perhaps as significantly. Coleman, for example, found high school seniors less intrinsically interested in learning than ninth grade pupils. Others have suggested (C. R. Rogers and J. R. Suchman) that children in elementary school become less autonomous in learning the longer they remain in school. Perhaps most pointedly in Biber's contention that the maturation of the autonomous process in children is neither automatic nor unilateral. In other words, it does not occur by itself but will flourish or decay depending upon the environment's response. What we may have been observing in our data is the net result of eleven years of attrition.

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* See Bolton, C. D. & Kammeyer, K. C. W. The University Student, New Haven, College and University Press, 1968.

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* See C. A. Malone, "Safety First: Comments on the Influence of External Danger in the lives of Children of Disorganized Families" in Sprinthall, R. C. and Sprinthall, N. A. Educational Psychology, American-Van Nostrand-Rinehold, 1969, pp. 332-338.

CONCLUSION

The inescapable conclusion is perhaps obvious, namely, that there is no single homogeneous sub-culture of adolescents in the secondary schools of our study. The pupils in the three schools were dissimilar in attitudes, perceptions and decision styles when compared across the schools. Within each school, however, the pupils manifested similar attitudes and perceptions toward school and learning and decision styles. This trend appeared from almost every assessment procedure we used in the study. In examining the content of the attitudes, of course, we find the dramatic nature of the differences that the various groups of adolescents have incorporated.

An interesting aside is the extent to which our research findings kept pushing us to broader and broader conceptions of the problems we thought we were researching. At first we thought we were dealing with a derivative of failures in school guidance programs. The decision-making procedures by the public school pupils were somewhat less than comprehensive. Also, their mis-perceptions as to their emerging careers seemed to single out guidance as inadequate. However, as additional evidence accumulated, particularly with regard to the absence of intrinsic learning, and the superficial rationalizations presented to justify academic courses, etc., we began to broaden our view to comprehend the curriculum as well. It was at this point that we began to question the feasibility of the concept intrinsic interest in learning. Perhaps it was simply inappropriate to consider such an idea during the period of secondary school. In fact, in a recent longitudinal study of college age pupils it appeared that both a relativistic view of knowledge and intrinsic interest developed during the post-adolescent years.*

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* Perry, W. G. and Sprinthall, N. A., Wideman, J. and Jones, F. J., Patterns of Development in Thought and Values, U. S. Dept. of HEW, Office of Education, April 1968, Final Report #5-0825.

However, the interview and attitude data that appeared from the small private school at that point indicated that for some, even during secondary school, intrinsic interest and self-directed learning was visible.*

At this point we can return to our earlier discussion concerning the influence of the school itself on pupils (and just behind the school, the community). Originally, of course, the conception of the public or common school was that of an agent to transmit cultural values. Especially in the 19th century in this country, the school was a means to "homogenize" children from various backgrounds, or to prepare them for useful lives in a democratic and egalitarian society. Pluralism at an abstract level at least was accepted as the input challenge to the school with the hoped for output as skills and common understandings, e.g., the school as a mechanism to weld together a society, or to mold the products of the melting pot. If our results have validity, then the schools plainly do not serve this function. Indeed, it is interesting to speculate on the social class function or differentiation of the three schools studied. In the city high school, the essential educational objective is vocational - the high school diploma is a union ticket. Modest upward mobility economically (more dollars) is the promise. Some political acculturation occurs. This is essentially a 19th century high school. Compare the suburban high school, where the essential educational objective is to guarantee college admission. College, in turn, guarantees social and economic status. (It is interesting that many of the parents in this suburb are either nouveau arrivé or nouveau riche or both. Their financial insecurity may be resolved, but social consolidation of this upward mobility is hardly secure.) Finally, the private school, essentially, it guarantees the class statuses of professional parents to their children - i.e., access to the professions, the arts (and, by assumption, the best colleges). This kind of school becomes an elitist or class prerogative. Its excellence and its educational ideals are consistent with - indeed add - to its social class guarantees. Thus, if there is anything to the theory that adolescence is a stage during which a crystallization of attitudes and values occurs, then the school may be simply perpetuating existing differences across three social and economic classes, rather than performing a function of convergence or change.

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* Also we should add that in many ways Perry's work was not in opposition to this point. In fact, he found that the more recent students in that study were entering Harvard College with both a less obedient attitude toward learning and more independence in thought.

Perhaps more significant, however, is the question of just what is being transmitted. It can be argued, from an elitist conception of society, that the three schools in our study are, in fact, accomplishing their particular objectives. For working class children, it may be most appropriate to meet their expectations and amplify obedience and a lack of questioning or inquiry in return for immediate entry into the adult job world. For the middle class child, similarly, it may be appropriate to stress the extrinsic benefits of learning to justify delay in gratification and the postponement of full adult status because of the demands of further education (and hence remaining in a student status). One of the highly interesting subjective impressions that the research staff picked up was the difference between the pupils in the urban and the suburban schools with regard to maturity. Many of the urban pupils appeared almost adult-like. Their casual descriptions of their after school jobs, their paying "board" at home and their immediate concern about a full-time job (or vocational training for the boys as enlisted servicemen) indicated an adult status in many ways. School, if anything, may be simply the place to receive a "leaving certificate." There were few indications of identity diffusion, i.e., questioning who they were or where they were going. They seemed to look forward to the near future when they would be on their own - a position not too dissimilar to where they already stood. By contrast, the pupils in the suburban school gave us the impression of a more "typical" adolescent dependency. They perceived the years ahead as involving student status and further "academic" preparation. At the same time, there seemed to be at an emotional level considerable negativism, perhaps due to the cross-currents involved in justifying education in functional terms.

If the elitist view has currency, then only in the private school would it be important to develop inquiry, questioning and intrinsic interest in learning. Only in that context would pupils comprehend that goal for education and by virtue of their background that view would be appropriate. These pupils are not confronted so directly with the need to translate their learning into economic terms. Under such conditions, the advantages of birth and education form a natural alliance to enhance appropriate attitudes and learning in that context.

However, if the justification for the common school as a democratizing influence does not hold, and if the elitist argument is construed as a valid but unacceptable explanation for existing inequality, then we are still caught in the paradox created by the findings. The concept of equal educational opportunity is at best a legal fiction, or at worst a convenient myth. To relegate the vast majority of secondary pupils (if our public schools are representative) either to a continuation of the present common school position or the de classe stance is, in our opinion, unjustifiable. It is increasingly obvious that all adults, regardless of their station in life, need a capacity for independence in thought or an ability to make careful and examined decisions. This capacity is not limited to careers of the "rich and well-born."* Even today's popular advertising stresses the "thinking man" as opposed to the obedient man. And it has become almost a truism to talk of the needs of a complex society for creative people who can "change" with the times. The concepts of learning to learn, of capacity and process rather than outcome as goals, etc., are certainly the main position of major educational theorists of many otherwise diverse persuasions.** Thus there is no alternative except considered and basic reform of educational practice. It is somewhat unintentional on our part to end on such a note. Yet, if we ask the question, "To what extent are our schools helping to prepare our youngsters for such demands for independence and to develop their capacities and attitudes for original thought to solve tomorrow's problems in the super-complex world of the 70's?" our study indicates a negative answer. The public school pupils manifested two intellectual modes. In a high school that was representative of a working class district, the predominate atmosphere was one of obedience in thought. Learning was seen as an exercise in rote memory - to repeat back what the teacher said, to follow directions, to learn the teacher's interpretation. In a school representative of suburban "green belt" schools, the mode of learning was different but nonetheless disconcerting. Students there learned in order to get good grades, to climb the achievement ladder. In fact, if you ask a pupil in such a school what he "gets out of school," he is most likely to reply: "good grades." An atmosphere for learning has been transformed into an achievement rat race. To what extent has this transformation been the unintended but ironic outcome of our attempts to "sell" education in functional and extrinsic terms? Every time we see an ad that promises $150,000 more to pupils who complete high school, perhaps we should stop and think how we may contribute to such motives.

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* A good example of this can be found in a new study by James Q. Wilson (Varieties of Police Behavior, Joint Center for Urban Studies). The report demonstrates the importance (often missing) of careful and selective decision-making on the part of patrolmen on the beat. He has the responsibility for enforcing the laws that are least precise and yet how he responds may have untold consequences. Studies of other occupations would reveal the importance of such considerations.

** Jerome Bruner's distinction between learning and thinking, Robert White's concept of personal competence and mastery, Carol Rogers' views on self-concept and change, Abraham Maslow's self-actualization, are examples. Philosophical positions similarly re-emphasize Alfred North Whitehead's classic comment -- that a man trained for only one job or a single "role" in a changing society is now a danger to that society.

The problem of education as reform is obviously a broad one that cannot be solved by a new "crash" program (crash programs do just that!). To promote independence in thought and the ability to be selective is no easy task, yet these are the important educational goals. (To develop comprehensive knowledge of one's self - both in intellectual and emotional terms - involves another major, if currently almost unrecognized, educational objective.) Without selectivity and the ability to make our own decisions, we would be hopelessly lost somewhere between the cosmic and the trivial. It would be like watching a person who entered a library to "learn" and who then starts with all the books at "a" and tries to read through to "z." He might learn something about "aardvark" but...

In order to change the educational process so that it really meets both the individual's needs and society's needs, educators and parents need to revise our own attitudes toward learning. It isn't easy. Our children, in many ways, are already hard enough to handle. In fact, it may be easier for us to control children and adolescents if we promote obedience in thought (at least we won't have to answer so many questions and admit that often we don't have the answers) or seek to use the fear of academic failure and the sanctions of grades to keep secondary students in line. On this point, a pupil's comment is revealing: "The only time my folks say anything about school is when the report card appears. They see how many honor grades I got and then say either 'That's good, keep the grades up' or 'Work harder.' And then silence."

In the long run, such motives for learning will cripple - or constrain - our children just as surely as any physical disease might. The only difference is that the scars don't show. They are inside. Conversely, by attending to the "voices from the back of the classroom," we may have both the most powerful data on the present impact of schooling as well as a challenge to change radically our present conceptions of curriculum and guidance.